

10/100/1000Mbps Intelligent Gigabit / Fast Ethernet Switch

WGSD-1020

User's Manual



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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Revision

PLANET Intelligent Gigabit / Fast Ethernet Switch User's Manual FOR MODEL: WGSD-1020 Part No.: 2080-000001-002

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1.1 Checklist

Check the contents of your package for following parts:

- WGSD-1020
- User's manual CD
- RS-232 cable
- Power cord
- Quick installation Guide

If any of these pieces are missing or damaged, please contact your dealer immediately, if possible, retain the carton including the original packing material, and use them against to repack the product in case there is a need to return it to us for repair.

1.2 About the Switch

The Ethernet Switch is equipped with unshielded twisted-pair (UTP) cable ports providing dedicated 10 or 100Mbps bandwidth. WGSD-1020 supports MDI-X/ MDI convertible on each 10/100 port and 2 Gigabit Switch port that can be used for uplinking to another switch. The dual speed ports use standard twisted-pair cabling and are ideal for segmenting networks into small, connected sub-networks. Each 100M port can support up to 200Mbps of throughput in full-duplex mode. Each 1000M port can support up to 2Gbps in Full-duplex mode.

In addition, the Switch is also support 2 Ethernet Gigabit ports to uplink to a server or network backbone. These Gigabit Switches are designed for Plug and Play installation, allows the network administrator to simply connect the network and power cables and the Switching/bridging functions begin automatically.

The front panel of these 10/100M plus Gigabit Switches provides LEDs for easy recognition of the switch operation status and for troubleshooting. These LED indicators display the power status for the system and Link/Act, 100, for each10/100M port. Link/Act, 1000/100, full-duplex for each Gigabit port.

With its build-in Web-based Management, managing and configuring the WGSD-1020 Intelligent Switch becomes easier.

From cabinet management to port-level control and monitoring, you can visually configure and manage your network via Web Browser, just click your mouse instead of typing cryptic command strings. However, the WGSD-1020 Intelligent Switch can also be managed via Console, or third-party SNMP Management.

1.3 Features

- Complies with the IEEE802.3 Ethernet, IEEE802.3u Fast Ethernet and IEEE802.3ab Gigabit Ethernet standard.
- Features Store-and-Forward mode with wire-speed filtering and forwarding rates.
- Full/ Half-Duplex capability on each 10/100Base-TX port, Full Duplex only on each 1000Base-T port.
- Automatic source address learning and aging.
- Support 8K MAC addresses.
- Support total 1Mbit packet buffers with dynamic allocation.
- ◆ IEEE802.3x compliant full-duplex flow control, half-duplex flow control.
- Broadcast storm control, runt and CRC Filtering eliminate erroneous packets to optimize the network bandwidth.
- ◆ Complies with IEEE 802.1p QoS / GARP
- ♦ VLAN support:
 - Port-based VLAN
 - 802.1Q tagged VLAN with GVRP

- Support IGMP V1.0
- Support LACP IEEE 802.3ad Port Trunking
- Support MAC address filtering
- Complies with IEEE 802.1d Spanning Tree
- Support port sniffer function
- SNMP agent: MIB 2 (RFC-1213)
 - Bridge MIB (RFC-1493)
 - Ethernet MIB (RFC-1643)
 - RMON MIB (RFC-1493) statistics, history, alarms, and events
- Support to handle up to 1522 bytes packet
- One RS232 port as local control console
- Telnet remote control console
- Web browser based on HTTP server
- TFTP/Xmodem software upgrade capability
- Internal power supply
- LED indicators for simple diagnostics and management
- Auto MDI/ MDI-X on each port

2. HARDWARE DESCRIPTION

This section describes the hardware features of the Giga Switch. For easier management and control of the switch, familiarize yourself with its display indicators, and ports. Front panel illustrations in this chapter display the unit LED indicators. Before connecting any network device to the Switch, read this chapter carefully.

2.1 Front Panel

The unit front panel provides a simple interface monitoring the switching. It includes a power indicator for each port.

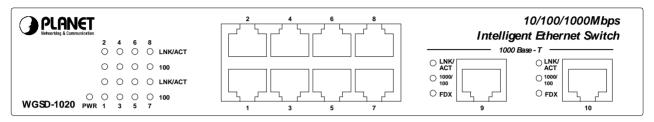


Figure 1: WGSD-1020 Switch front panel

LED indicators:

System

LED	Color	Function
PWR	Green	Lit on: Power on
		Lit off: power off

100Base-TX

LNK/ACT

LED	Color	Function
LNK / ACT	Green	Lit: indicate the link through that port is successfully established.
		Blink: indicate that the switch is actively sending or receiving data over that port.

100

LED (Color	Function
100 C	Drange	Each RJ45 station port on the Switch is assigned one LED for monitoring port "Good Link" and data traffic. The LED is normally OFF. After the power on operation, LED will light orange color steadily to show "Good Link" when port is been connected with 100Mbps. LED will be off when port is run at 10Mbps.

1000Base-T

LNK/ACT

LED	Color	Function
LNK / ACT	Green	Lit: indicate the link through that port is successfully established.
		Blink: indicate that the switch is actively sending or receiving data over that port.

1000/100

LED	Color	Function
1000	Orange	Lit: indicate that connection made through the corresponding port is running at 1000Mbps.
100	Green	Lit: indicate that connection made through the corresponding port is running at 100Mbps.

FDX

LED	Color	Function
FDX	Green	Lit: indicate that the connection made through the corresponding port is running in Full Duplex mode. Blink: indicate that the connection is experiencing collisions

2.2 Rear Panel

The rear panel of the Switch indicates an AC inlet power socket, which accepts input power from 100 to 240VAC, 50-60Hz.



Figure 2: WGSD-1020 Switch rear panel

Power Notice:

- 1. The device is a power-required device, it means, it will not work till it is powered. If your networks should active all the time, please consider using UPS (Uninterrupted Power Supply) for your device. It will prevent you from network data loss or network downtime.
- 2. In some area, installing a surge suppression device may also help to protect your switch from being damaged by unregulated surge or current to the Switch or the power adapter.

2.3 Hardware Installation

2.3.1 Before start up

Before your installation, please refer to the followings for your cabling:

100Base-TX

All 100Base-TX ports come with auto-negotiation capability. They automatically support 100Base-TX and 10Base-T networks. Users only need to plug a working network device into one of the 100Base-TX ports, then turn on the Switch. The port will automatically runs in 10Mbps, 20Mbps, 100Mbps or 200Mbps after the negotiation with the connected device.

1000Base-T

The Switch are with two Gigabit port. This two ports support 10Mbps, 100Mbps and 1000Mbps speed and also are full-duplex supported.

Cabling

Each 10/100/1000Base-T ports use RJ-45 sockets -- similar to phone jacks -- for connection of unshielded twisted-pair cable (UTP). The IEEE802.3ab Gigabit Ethernet standard requires 4-pair Category 5/5e UTP cable, IEEE 802.3u Fast Ethernet standard requires Category 5 UTP for 100Mbps 100Base-TX. 10Base-T networks can use Cat.3, 4, or 5 UTP (see table below). Maximum distance is 100meters (328 feet).

Port Type	Cable Type	Connector		
10Base-T	Cat 3, 4, 5, 2-pair	RJ-45		
100Base-TX	Cat.5 UTP, 2-pair	RJ-45		
1000Base-T	Cat. 5/5e UTP, 4-pair	RJ-45		

Any Ethernet devices like hubs/ PCs can connect to the Switch by using straight-through wires. The eight 10/100Mbps port and two 1000Base-T are auto-MDI/ MDI-X can be used on straight-through or crossover cable.

2.3.2 Connecting end node or hub or switch

- 1. Place the Switch on a smooth surface or fasten the mounting brackets purchased separately with the provided screws in a standard 10"/19" rack.
- 2. Connect the power cord to the power inlet socket of Switch and the other end into the local power source outlet.
- 3. Connect other switch or PC to one port of the WGSD-1020 using Category 3/4/5 UTP/STP cabling.
- 4. Connect another switch or PC to the other port of Switch by following the same process as described in Step3.

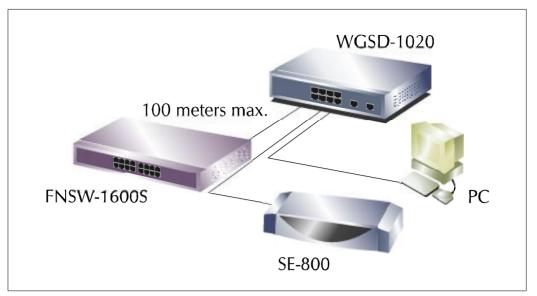


Figure 3. End node or Hub or Switch connection

Notice:

Cable distance for Switch

The cable distance between Ethernet Switch and hub/PC should not exceed 100 meter for UTP/STP cable.

Make sure the wiring is correct

It can be used Category 3/4/5 cable in 10 Mbps operation. To reliably operate your network at 100Mbps and 1000Mbps, you must use an Unshielded Twisted-Pair (UTP) Category 5 cable, or better Data Grade cabling. While a Category 3 or 4 cable may initially seem to work, it will soon cause data loss.

2.3.3 Connecting to Network Backbone or Server

Connect to the Gigabit Ethernet ports with Category 5 copper cable for uplinking to a network backbone or network server. These ports operate at 1000Mbps in full-duplex mode. A valid connection is indicated when the Link LED is light.

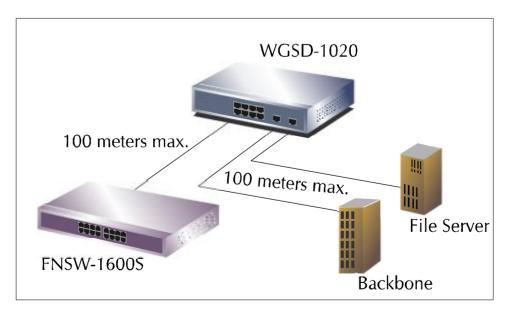


Figure 4: Network Backbone or Server connection

3. SWITCH MANAGEMENT

This chapter describes how to manage the Switch. Topics include:

- Overview
- Management methods
- Assigning an IP address to the Switch
- Logging on to the Switch

3.1 Overview

The Switch provides a user-friendly, menu driven console interface. Using this interface, you can perform various switch configuration and management activities, including:

- Assigning an IP address
- Configuring Switch settings
- Display console port information
- Configuring each port status
- Configuring Port Trunking
- Setting up packet filters
- Setting up VLAN policy
- Configuring STP and port sniffer
- Configuring SNMP parameters
- TFTP Upgrading software
- Backup Switch configuration

Please refer to the following or Chapter 4 and 5 for the details.

3.2 Management Methods

There are three ways to manage the Switch:

- Local Console Management via the Switch serial port.
- Remote Console Management via a network or dial-up connection.
- Web Management via a network or dial-up connection.
- Using an SNMP Network Management Station.

3.2.1 Local Console Management

You can manage the Switch locally by connecting a VT100 terminal, or a personal computer or workstation with terminal emulation software, to the Switch serial port. The terminal or workstation connects to the Switch serial port using a null modem cable that has the appropriate connectors on each end.

This management method is ideal when:

- The network is unreliable
- The Network Manager does not have direct network connection
- A Network Manager does not support SNMP

The serial port of the Switch default setting is set to **9600** baud using a character format of **8** data bits, **no** parity, and **1** stop bit.

Therefore, configure the terminal or workstation to use these settings before you log on to the Switch. You can change this default setting, if desired, after you log on.

3.2.2 Remote Console Management

You can manage the Switch remotely by having a remote host establish a Telnet connection to the Switch via an Ethernet or modem link.

Using this management method:

The Switch must have an Internet Protocol (IP) address

The Remote Console Management interface is identical in appearance and functionality to the Local Console Management interface described in the previous section.

3.2.3 Web Management

You can manage the Switch remotely by having a remote host with web browser, such as Microsoft Internet Explorer or Netscape Navigator.

Using this management method:

The Switch must have an Internet Protocol (IP) address accessible for the remote host

3.2.4 SNMP Management

You can manage the Switch across a LAN using an SNMP Network Management Station with a graphical user interface.

This management method lets you monitor statistical counters and set switch parameters from the remote Network Management Station.

Using this management method:

- The network must run the IP protocol.

- The Switch must have an IP address

3.3 Assigning an IP Address to the Switch

To manage the Switch remotely through the console port or with an SNMP Management Station, you must assign an IP address to the Switch.

You assign IP address through the IP Settings screen. This procedure is described in Chapter 4, Section IP Networking. It is strongly recommends you assign an IP address to the default VLAN (VLAN ID = 1) for Remote Console Management and SNMP Network Management.

3.4 Logging on to the Switch

When you log on to the Switch console port for the first time, a sign-on string appears and you are prompted for a console login name and password.



The factory default login name is **admin** without password. If you desire, you can add password after you log on.

4. CONSOLE INTERFACE

4.1 CONNECT TO PC

RS-232 serial cable

Use the bundled RS-232 serial cable and attach the 9-pin female connector to the male connector on the switch. Plug the other side of this cable to your PC.

Hyper Terminal

In Windows 95/98/2000/XP, launch "HyperTerminal", create a new connection, and adjust settings as below:

- § Emulation: VT-100 compatible
- § Baud per second: 9600
- § Data bits: 8
- § Parity: None
- § Stop bits: 1
- § Flow Control: None

To gain a demo, please see the Figure 4-1.

I 1 Properties			
Bits per second:	9600		•
Data bits:	8		_
Parity:	None		•
Stop bits:	1		•
Flow control:	None		•
5.		Rest	ore Defaults
0	ĸ	Cancel	Appl

Figure 4-1 Port Settings for console interface

4.2 Login in

Login is required to access the command console after the self-test completes successfully. The factory default user name is "**admin**" without password. You may change it in the System Menu. To access to the Main Menu, please always enter the correct user name. (See Figure 4-2)

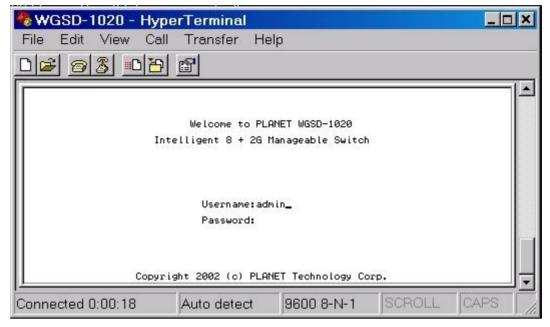


Figure 4-2 WGSD-1020 login screen

4.3 Main screen

After login the WGSD-1020, the main screen shows as below.

🍓 WGSD-1020 - Hyp	erTerminal					
File Edit View Call	Transfer Help					
02 08 =	12 2					
	Mair ====) Menu =====				
	Status ar	d Counters				
	Switch St	atic Configura	ation			
	Protocol	Related Config	guration			
	Reboot Su	vitch				
	Command L	ine				
	Logout					
Tab=Next Item	Show the BackSpace=Previ	status of the lous Item - H	switch. Inter=Select	Item		
Connected 0:02:08	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-3 WGSD-1020 Main Menu screen

4.3.1 Status and Counters

From the Switch main menu screen (see Figure 4-3), highlight Status and counters and press enter. The Status and Counters sub-screen in Figure 4-4 appears.

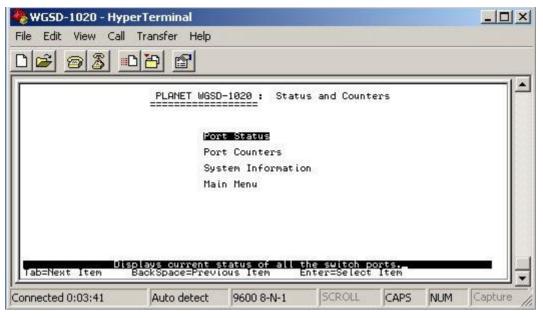


Figure 4-4 Status and Counters sub-screen

This sub-menu contains four items:

Port Status: Please refer to chapter 4.3.1.1.

Port Counters: Please refer to chapter 4.3.1.2

System Information: Please refer to chapter 4.3.1.3

Main Menu: return to main menu.

4.3.1.1 Port Status

Display the status of each port on WGSD-1020.

🍓 WG5D-1020 -	- HyperTermi	nal			×
File Edit View	Call Transfe	r Help			
02 28		<u>8</u>			
	PLA ====	NET WGSD-1020): Port Stati =	us	l^
2003-4-5-6-	Туре 0/100ТХ 0/100ТХ 0/100ТХ 0/100ТХ 0/100ТХ 0/100ТХ 0/100ТХ 0/100ТХ	Enabled No Yes No No No No Yes	Status Down Down Down Down Down Down Up	Mode 100 Full 100 Full 100 Full 100 Full 100 Full 100 Full 100 Full	FlowCtrl On Off Off On On On Off
Actions-> Tab=Next Item	KQUIT BackSpace=	<previous f<br="">Select the Previous Iter</previous>	action menu.	t Page> us menu Enter=	Select Item
Connected 0:04:07	7 Auto	detect 960	0 8-N-1	ROLL CAPS	NUM Capture

Figure 4-5 Port Status screen

4.3.1.2 Port Counters

Display the traffic counters of each port on WGSD-1020.

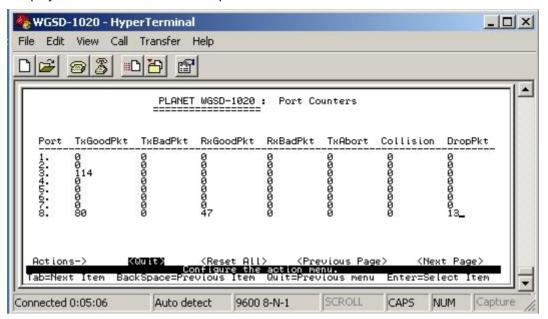


Figure 4-6 Port Counters screen

4.3.1.3 System Information

Display the Switch information.

🏶 WGSD-1020 - Hyp	erTerminal					
File Edit View Call	Transfer Help					
02 93 .	12 2					
	PLANET WGSD-102	20 : Managemen ====	nt Address I	nformat i	on	
System Descripti MAC Address Firmware version Hardware version Default config v	:	Intelligent 3 004063800030 002.80 A003.000 v025.000	3+26 Switch			
Esc=Previous m	enu Auto detect	the switch s	iscroll	CAPS	NUM	

Figure 4-7 System Information screen

4.3.2 Switch Static Configuration

From the Switch Static Configuration screen (see Figure 4-8), highlight Switch Static Configuration and press Enter. The Switch Static Configuration sub-screen in Figure 4-9 appears.

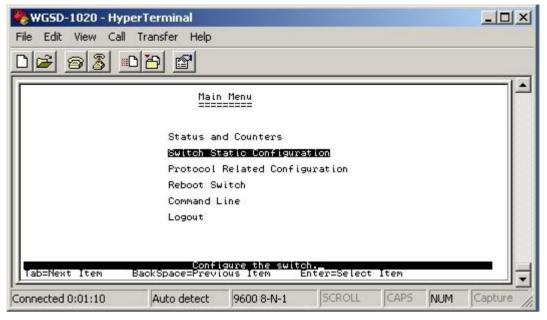


Figure 4-8 Switch Static Configuration screen

🍓 ₩G5D-1020 - Нур	erTerminal					
File Edit View Call	Transfer Help					
02 08 -						
	PLANET WGSD-102	20 : Switch Co	onfiguration	Ŕ		
	Administr	ation Configu	ration			
	Port & Tr	unking Config	aration			
	Port Snif	fer Configurat	tion			
	VLAN Conf	iguration				
	Priority	Configuration				
	MAC Addre	ss Configurat	ion			
	Misc Conf	iguration				
	Main Menu	I				
Tab=Next Item	Configure the BackSpace=Previ	system, IP, and ous Item - 1	password. nter=Select	: Item		
Connected 0:34:46	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-9 Switch Static Configuration sub-screen

This sub-menu contains eight items:

Administration Configuration: please refer to chapter 4.3.2.1. Port & Trunking Configuration: please refer to chapter 4.3.2.2. Port Sniffer Configuration: please refer to chapter 4.3.2.3. VLAN Configuration: please refer to chapter 4.3.2.4. Priority Configuration: please refer to chapter 4.3.2.5 MAC Address Configuration: please refer to chapter 4.3.2.6. Misc Configuration: please refer to chapter 4.3.2.7 Main Menu: please refer to chapter 4.3.2.8.

4.3.2.1 Administration Configuration

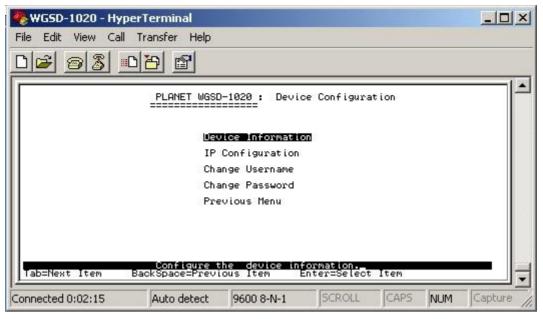


Figure 4-10 Device Configuration screen

This sub-menu contains five items:

Device Information: please refer to chapter 4.3.2.1.1

IP Configuration: please refer to chapter 4.3.2.1.2

Change Username: please refer to chapter 4.3.2.1.3

Change Password: please refer to chapter 4.3.2.1.4

Previous Menu: return to previous menu

4.3.2.1.1 Device Information

Display the Device information.

🏀 WGSD-1020 - HyperTerminal	
File Edit View Call Transfer Help	
PLANET WGSD-1020 : Device Information	
Device Name : PLANET WGSD-1020	
Device Content :	
Device Location :	
Device Description : Intelligent 8+26 Switch	
Actions-> KEGITT (Quit> Select the action menu. Tab=Next Item BackSpace=Previous Item Quit=Previous menu Enter=Select	Item
Connected 0:00:21 Auto detect 9600 8-N-1 SCROLL CAPS NUM	Capture //

Figure 4-11 Device Information screen

4.3.2.1.2 IP Configuration

Press "Edit" to modify the IP address, Subnet Mask and Gateway.

🍓 WGSD-1020 - Hyper	[erminal					_ 🗆 🗙
File Edit View Call Tr	ansfer Help					
D@ @3 _0	8					
₽Ľ	ANET WGSD-1020	3 : IP Config	puration			
	IP Address	: 192.168.0.	1			
	Subnet Masł	(: 255.255.25	5.0			
	Gateway	: 192.168.0.	254			
Actions->	-6168	<save></save>	<qu i<="" td=""><td>t></td><td></td><td></td></qu>	t>		
Tab=Next Item BackS	Select pace=Previous	the action me Item Quit=Pr	nu. evious menu	Enter:	Select	Item 🚽
Connected 0:39:37	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-12 IP Configuration screen

Press "Tab" to move the cursor to IP Address, Subnet Mask and Gateway to input new value.

After setup completed, press "**ctrl-A**" to save the current configuration. The following screen in Figure 4-13 appears.

🍓 WG5D-1020 - Hyp	perTerminal					
File Edit View Call	Transfer Help					
D 🖻 🔊 🐉 🗉						
	PLANET WGSD-1020	ð: IP Configu ===	aration			
	IP Address	: 192.168.0.:	1			
	Subnet Mask	: 255.255.258	5.0			
	Gateway	: 192.168.0.2	254			
Actions-> you need to re Tab=Next Item Ba	<edit> start the system ckSpace=Previous</edit>	<save> for valid valu Item Quit=Pre</save>	-	t≻ key to Enter=	return Select	
Connected 0:42:22	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture //

Figure 4-13 IP Configuration save successful screen

You need to reboot the Switch to take effect of your IP configuration.

4.3.2.1.3 Change Username

Press **"Edit"** to input the new username and choose **"save"** to save the current configuration. The following screen in Figure 4-14 appears.

🏶 WGSD-1020 - H	HyperTerminal					
File Edit View (Iall Transfer Help					
02 03						
	PLANET WGSD	-1020 : Usert =====	lame Configu)	ration.		
	UserName :	admin				
Actions-> Tab=Next Item	KEdit> Select BackSpace=Previous	<save> the action mu Item Quit=P</save>	⟨Qu anu. revious menu	it≻ Enter=	Select	Item
Connected 0:06:31	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-14 Edit Username Configuration screen

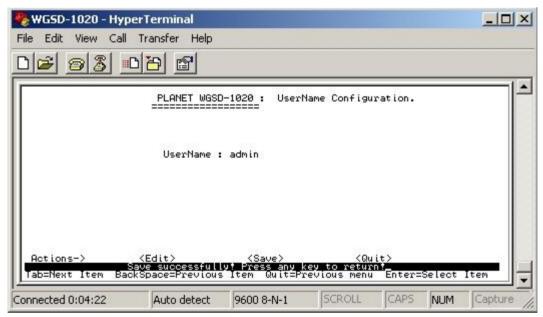


Figure 4-15 Username Configuration save successfully screen

4.3.2.1.4 Change Password

Allow user to modify the password.

WGSD-1020 - Hy File Edit View Ca	CONTRACTOR OF A DESCRIPTION OF A DESCRIP	elp		
<u>De 88 -02</u>				
-	PLANET WGSD-1020 :	Password Config	wration	
	Old Password: New password:***			
	Enter again :***			
Password ch Esc=Previous menu	anged successfully	! Press any key t	o return!	
Connected 0:01:27	Auto detect	9600 8-N-1	SCROLL	CAPS

Figure 4-16 Password Configuration screen

Modify the password procedure:

- 1. Enter old password: empty (Default is no password)
- 2. Enter new password: * * * (New password 123)
- 3. Enter again : * * * (New password 123)
- 4. Press "Enter" to apply the new password.(see the Figure 4-16)

4.3.2.2 Port & Trunking Configuration

From the Switch Static Configuration sub-screen (see Figure 4-9), highlight Port Trunk Configuration and press enter. The Port Trunk Configuration screen in Figure 4-17 appears.

16 2		ANET WGSD-10	320 : Port &	Trunking Confi	guration	1-
Port	Туре	Enabled	Auto Negotiate	Speed/Duplex Config	Flow Control	Group
1	10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX	Yes Yes Yes Yes Yes Yes Yes Yes	Enabled Enabled Enabled Enabled Enabled Enabled Enabled Enabled	100 Full 100 Full 100 Full 100 Full 100 Full 100 Full 100 Full 100 Full	0ff 0ff 0ff 0ff 0ff 0ff 0ff 0ff	
Actions [.] Tab=Next			e Action men	<previous page<br="">u. =Previous menu</previous>		

Figure 4-17 Port & Trunking Configuration screen

Press " Edit" to configure the trunk group. After setup completed, press "ctrl-A" to save the current configuration. The following screen in Figure 4-18 and 4-19 appears.

	PL	ANET WGSD-1	020 : Port &	Trunking Confi	guration	
Port	Туре	Enabled	Auto Negotiate	Speed/Duplex Config	Flow Control	Group
1	10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX	Yes Yes Yes Yes Yes Yes Yes Yes	Enabled Enabled Enabled Enabled Enabled Enabled Enabled Enabled	100 Full 100 Full 100 Full 100 Full 100 Full 100 Full 100 Full 100 Full	0ff 0ff 0ff 0ff 0ff 0ff 0ff 0ff	Trk1 Trk1 Trk22 Trk22 Trk88 Trk88 Trk4 Trk4

Figure 4-18 Save Port & Trunking Configuration process screen

	PL	ANET WGSD-	1020 : Port 8	Trunking Confi- Trunking Confi-	guration	
Port	Туре	Enabled	Auto Negotiate	Speed∕Duplex Config	Flow Control	Group
1.	10/100TX 10/100TX 10/100TX 10/100TX	Yes Yes	Enabled Enabled Enabled	100 Full 100 Full 100 Full	Off Off	Trk1 Trk1 Trk2
120745567-8	10/100TX 10/100TX 10/100TX 10/100TX	Yes Yes Yes Yes Yes Yes Yes	Enabled Enabled Enabled Enabled	100 Full 100 Full 100 Full 100 Full 100 Full 100 Full	0ff 0ff 0ff 0ff 0ff 0ff	Trk1 Trk1 Trk2 Trk3 Trk3 Trk4 Trk4 Trk4
8. 8.	10/10010 10/100TX	Yes Yes	Enabled Enabled	100 Full 100 Full	Öff Off	Trk4 Trk4 Trk4

Figure 4-19 Port & Trunking Configuration save successfully screen

4.3.2.3 Port Sniffer Configuration

From the Switch Static Configuration sub-screen (see Figure 4-9), highlight Port Sniffer Configuration and press enter. The Port Sniffer Configuration screen in Figure 4-20 appears.

🍓 WGSD-1020 - Hyp						
File Edit View Call	Transfer Help					
<u> De 93 -</u>						
	PLANET WGSD-10	20 : Port Sni	ffer Configu	ration		
Roving Analy	sis : ENABLE					
Analysis Por Monitor Port	t: 1					
Port	Туре	Action				
1.0004.0.07-8.	10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX	RX TX Legga				
Actions-> <qui Tab=Next Item E Connected 1:03:50</qui 	it> <edit> Edit the BackSpace=Previ</edit>	(Save) snlffer conflig ous Item Spac	<previous pa<br="">uration. e=Toggle Ct [SCROLL</previous>	nge> < rl+A=Act CAPS	Next Pag ion menu	e>

Figure 4-20 Port Sniffer Configuration screen

Press "Edit" to configure the Port Sniffer function.

Roving Analysis: provide disable or enable port sniffer function.

Analysis Port: allow seeing all monitor port traffic; you can connect sniffer port to LAN Explorer, Session Wall, Sniffer Pro or Netxray.

Monitor port: choose one specific port for monitor the traffic of RX and TX or both (RX and TX) of Analysis port

After setup completed, press "ctrl-A" and choose "save" to save the current configuration.

4.3.2.4 VLAN Configuration

From the Switch Static Configuration sub-screen (see Figure 4-9), highlight VLAN Configuration and press enter. The VLAN Configuration screen in Figure 4-21 appears.

🍓 WGSD-1020 - HyperTermina	1				- 🗆 ×
File Edit View Call Transfer	Help				
D 🖻 🔊 🔊 🖻 🖻 🖆	2				
PLANE	T WGSD-1020 : VLAN	Configuratio	'n		
	VLAN Configure				
	Create a VLAN Group				
	Edit/Delete a VLAN 0	iroup			
	Previous Menu				
Tab=Next Item BackSpace=Pr	the VIAN PUID and D evious Item Quit=Pr	ngress Rule. Pevious menu	Enter=	Select	Item
Connected 0:14:17 Auto de	etect 9600 8-N-1	SCROLL	CAPS	NUM	Capture //

Figure 4-21 VLAN Configuration screen

This sub-menu contains four items:

VLAN Configure: please refer to chapter 4.3.2.4.1

Create a VLAN Group: please refer to chapter 4.3.2.4.2

Edit/ Delete a VLAN Group: please refer to chapter 4.3.2.4.3

Previous Menu: return to previous menu

4.3.2.4.1 VLAN Configure

Provide disable /enable VLAN function and 3 VLAN mode selections.

🟀 WGSD-1020 - HyperTerminal	
File Edit View Call Transfer Help	
PLANET WGSD-1020 : VLAN Support Configuraton	I_
VLAN Mode :Disabled	
1	
Actions-> <quit> KECHTER <save> <previous page=""> <next f<="" td=""><td>age></td></next></previous></save></quit>	age>
Select the Action manu. Tab=Next Item BackSpace=Previous Item Quit=Previous menu Enter=Select	Item 🗸
Connected 10:57:21 Auto detect 9600 8-N-1 SCROLL CAPS NUM	Capture

Figure 4-22 VLAN Configuration screen

Press **"Ctrl-A"** to choose **"Edit"** for enable VLAN function and select the 3 VLAN modes through the space bar. The IEEE 802.1Q VLAN screen in Figure 4-23 appears. The maximum PVID is 4094.

Port PVID NonMember Pkt Unt 1. 1 Drop For 2. 1 Drop For 3. 1 Drop For 4. 1 Drop For 5. 1 Drop For 6. 1 Drop For 6. 1 Drop For 7. 1 Drop For	ressFilter2
	agged Pkt
	ward ward ward ward ward ward ward ward
Actions-> <quit> <edit> <save> <previous Select the Action menu. Tab=Next Item BackSpace=Previous Item Space=Toggle</previous </save></edit></quit>	Page> <next page=""></next>

Figure 4-23 IEEE 802.1Q VLAN Configuration screen

Press space bar switch to **802.1Q with GVRP** in VLAN mode. The screen in Figure4-24 appears.

W	GSD-1020 - Hype	rTerminal			
File	Edit View Call	Transfer Help			
	≥ @ 3 •0	8			
	0=	LANET WGSD-10 de :802.10 wi	=====	Configuraton	
	Port	PVID	IngressFilter1 NonMember Pkt	IngressFilter2 Untagged Pkt	
	1.1.2.3.4.5.67.8		Drop Drop Drop Drop Drop Drop Drop Drop	Forward Forward Forward Forward Forward Forward Forward Forward	
		Select th ckSpace=Previ	e Action menu. ous Item Space=To	ggle Ctrl+A=Action	<u> </u>
Conne	cted 1:10:46	Auto detect	9600 8-N-1 3	SCROLL CAPS NL	M Capture

Figure 4-24 IEEE 802.1Q VLAN with GVRP screen

Press space bar switch to Port-based VLAN in VLAN mode. The screen in Figure4-25 appears.

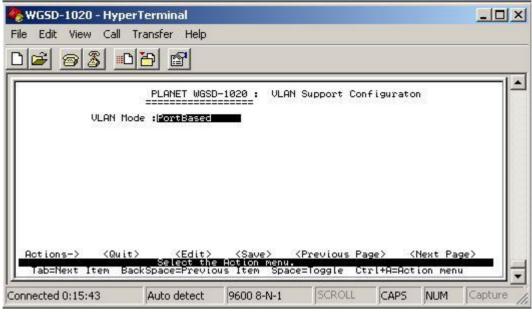


Figure 4-25 Port-based VLAN screen

4.3.2.4.2 Create a VLAN Group

To add a VLAN group, the VLAN ID range is 1-4094.

🍓 WGSD-1020) - HyperTern	ninal					
File Edit View	Call Transf	er Help					
DE AL	3 08						
			Add a VLAN	Group			
11	VLAN Name:	07859		LAN ID: [](1~409	41	
11	Protocol V	LAN: No		LAN 10. L	1(1 407		
11	Port	Memb					
11	1.	No	76777				
11	12345.	2000 2200 2200 2200 2200 2200					
11	5.	Nõ No					
11	8:	No No					
Actions->	<quit></quit>	<edit></edit>	<save></save>	<previous p<="" pre=""></previous>	age> <	Next Pa	ae>
Tab=Next I	tem BackSpa	elect the ce=Previo	Action menu us Item Spa	ce=Toggle C	trl+A=Act	ion men	u -
Connected 0:09:	18 Aut	o detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-26 Add a VLAN Group screen

Add a VLAN Group procedure:

- 1. Press " Edit" to input the VLAN name and VLAN ID.
- 2. Choose different VLAN protocol through the space bar.
- 3. Under 802.1Q and 802.1Q VLAN mode. Set Tagged, Untagged or no (not belong to any VLAN group) of each port.
- 4. Under Port-based VLAN mode. Set Member or no (not belong to any VLAN group) of each port.
- 5. Press "Ctrl-A" and choose "Save" to save the current configuration.

4.3.2.4.3 Edit / Delete VLAN Group

Allow editing and deleting VLAN GROUP.

🏶 WGSD-1020 - Hype	rTerminal					
File Edit View Call	Transfer Help					
02 03 0	8					
		Edit an VLAM	l Group			
VLAN	Name: [<mark>default</mark>	Managaranan di VLA	AN ID: [1](1~4094)	
Proto	col VLAN : No	ne				
Port	Memb	er				
12:3:45:67:8:	Un Ta Un Ta Un Ta Un Ta Un Ta Un Ta Un Ta Un Ta	99ed 99ed 99ed 99ed 99ed 99ed 99ed 99ed				
Actions-> <quit Tab=Next Item Ba</quit 	> <edit> Select Une ckSpace=Previc</edit>	<save> < Hetion Manu. us Item Space</save>	(Previous Pa =Toggle Ct	ge> <n rl+A=Acti</n 	ext Page on menu	
Connected 1:17:18	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture /

Figure 4-27 Edit a VLAN Group screen

4.3.2.5 Priority Configuration

Displays the options available for assigning **High** and **Low** priority to each port. From the Switch Static Configuration sub-screen (see Figure 4-9), highlight Priority Configuration and press enter. The Priority Configuration screen in Figure 4-28 appears

🏀 WGSD-1020 - Hyp	erTerminal			- O ×
File Edit View Call	Transfer Help			
	PLANET WGSD-1020 :	Priority Configu	ration	
	Priority 0 : Low Priority 1 : Low Priority 2 : Low Priority 3 : Low Priority 4 : High Priority 5 : High Priority 7 : High			
	High∕Low Queue Servio	e Ratio H:L :[2:1	3	
Actions-> Tab=Next ItememBad	KEGITE <s Select the ac Space=Previous Itemer</s 	ave> <qu stion menu. Quit=Previous menu</qu 	∤it> 4rlEnter=Select I	tem
Connected 13:05:03	Auto detect 9600	8-N-1 SCROLL	CAPS NUM	Capture

Figure 4-28 Priority Configuration screen

Press " Edit" to assigning High or Low priority of each port.After setup completed, press "Ctrl-A" and choose "Save" to save the current configuration. The screen in Figure 4-29 appears.

🍓 WGSD-1020 - Hype	erTerminal					_ 🗆 ×
File Edit View Call	Transfer Help					
06 28 0	12 2					
	PLANET WGSD	-1020 : Prior	`ity Configu	ration		
	Priority 0 : Priority 1 : Priority 2 : Priority 3 : Priority 5 : Priority 5 : Priority 7 : High/Low Queue	Low Low Low High High High High Service Batic	Hel :[2:1	1		
		Service Natio	, H.L	-		
Actions-> Tab=Next Item Bac	<edit> ave successfull <space=previous< td=""><td><save> •• Press any & Item Quit=Pr</save></td><td>Qu ey to retur evious menu</td><td>it≻ ni Enter=</td><td>Select</td><td>Item</td></space=previous<></edit>	<save> •• Press any & Item Quit=Pr</save>	Qu ey to retur evious menu	it≻ ni Enter=	Select	Item
Connected 13:33:39	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-29 Priority Configuration save successfully screen

Press any key return to the previous menu.

4.3.2.6 MAC Address Configuration

Provide static MAC address and Filtering MAC address and previous Menu. From the Switch Static Configuration sub-screen (see Figure 4-9), highlight MAC address Configuration and press enter. The MAC address Configuration screen in Figure 4-30 appears.

WGSD-1020 - Hyp	22200 202 202	g				_ 🗆 🗙
File Edit View Call	Transfer Help					
<u>Dei 93 -</u>						
	PLANET WGSD)-1020 : MAC (Address Conf	iguration	i	
	Stat	c MAC Address				
		ring MAC Addre	255			
	Previ	ous Menu				
Tab=Next Item	Configu BackSpace=Previ	re the MAC add ous Item - H	iress. inter=Select	Item		-
Connected 0:22:26	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-30 MAC Address Configuration screen

This sub-menu contains 3 items.

Static MAC Address: please refer to chapter 4.3.2.6.1.

Filtering MAC Address: please refer to chapter 4.3.2.6.2.

Previous Menu: return to previous menu.

4.3.2.6.1 Static MAC Address

🗞 WGSD-1020 - HyperTerminal	
File Edit View Call Transfer Help	
PLANET WGSD-1020 : Static MAC Address Configuratio	
Actions-> KHEGK (Edit) (Delete) (Save) (Quit)	
Tab=Next Item BackSpace=Previous Item Guit=Previous Menu Enter=Select	Item_
Connected 0:22:54 Auto detect 9600 8-N-1 SCROLL CAPS NUM	Capture

Figure 4-31 Static MAC Address Configuration screen

Press, "Add" to add a static MAC address, after setup completed, press "Ctrl-A" and choose "Save" to save the current configuration. The screen in Figure 4-32 appears

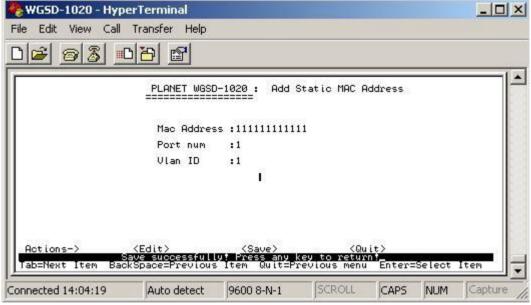


Figure 4-32 Static MAC Address Configuration screen

Press any key return to the previous menu.

4.3.2.6.2 Filtering MAC Address

🏷 WGSD-1020 - Hyp	erTerminal				_ 🗆 ×
File Edit View Call	Transfer Help				
🗅 🚅 🐵 🏂 🗉	12 2				
	PLANET WGSD-1020	: Filter MAC A	ddress Cor	nfiguratio	
Mac Address VI	an ID	= Mac Address 	Vlan ID		
SHERINGS STOLEN	dd) 〈Edit〉 Add/Edit/Delete fi kSpace=Previous Item	lter MAC address	Save> es. menu Ente	<quit> er=Select</quit>	Item
onnected 0:26:43	Auto detect 960	0 8-N-1 SCRC	LL CAP	S NUM	Capture

Figure 4-33 Filter MAC Address Configuration screen

Press **"Add"** to add a Filter MAC address, after setup completed, press **"Ctrl-A"** and choose **"Save"** to save the current configuration. The screen in Figure 4-34 appears

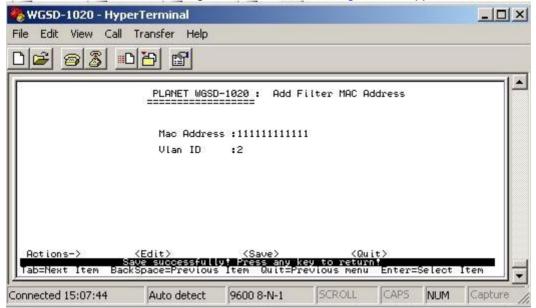


Figure 4-34 Filter MAC Address Configuration save successfully screen

4.3.2.7 Misc Configuration

From the Switch Static Configuration sub-screen (see Figure 4-9), highlight Misc Configuration and press enter. The Misc Configuration sub-screen in Figure 4-35 appears.

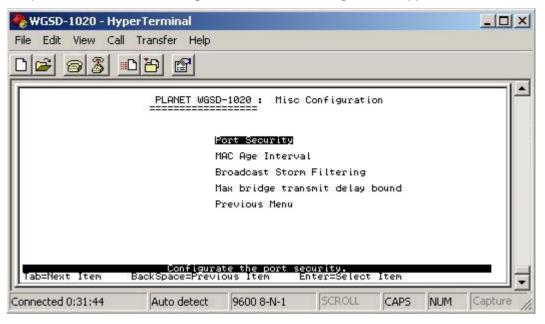


Figure 4-35 Misc Configuration screen

This sub-menu contains five items:

Port Security: please refer to chapter 3.3.2.7.1

MAC Age Interval: please refer to chapter 3.3.2.7.2

Broadcast Storm Filtering: please refer to chapter 3.3.2.7.3

Max bridge transmits delay bound: please refer to chapter 3.3.2.7.4

Previous Menu: return to previous menu

4.3.2.7.1 Port Security

Provide disable or enable security of each port. The screen in Figure 3-36 appears.

🏶 🕸 🕹 🕹 👋	erTerminal				
File Edit View Call	Transfer Help				
06 08 1					
					I
	PLANET WGSD-102	0 : The Confi ===	iguration of	Port Securi	ty 📕
50					
Port	Enable Sec (Disable for MA	urity C Learning)			
1.	Disable Langoleo	d			
1.1.00.1.00.00	Disable Disable Disable	a			
9. 6.	Disable Disable	d d			
8.	Disable	d			
Actions-> <qui< td=""><td>t> <edit> Select the BackSpace=Previo</edit></td><td><pre></pre></td><td>(Previous Pa =Togale Ct</td><td>ge> <next< td=""><td>Page></td></next<></td></qui<>	t> <edit> Select the BackSpace=Previo</edit>	<pre></pre>	(Previous Pa =Togale Ct	ge> <next< td=""><td>Page></td></next<>	Page>
12			and press and the	-	
Connected 1:24:42	Auto detect	9600 8-N-1	SCROLL	CAPS NU	M Capture //

Figure 4-36 Port Security Configuration screen

4.3.2.7.2 MAC Age Interval

Allow to setting the aging time of WGSD-1020. The maximum value is 765 sec.

🏶 WGSD-1020 - HyperTerminal	- O ×
File Edit View Call Transfer Help	
DF 93 DB F	
PLANET WGSD-1020 : The Configuration of Aging Time	
MAC Age Interval (sec) [300] : 300 (300~765)	
Actions-> KEGITS (Save> <quit> Tab=Next Item BackSpace=Previous Item Quit=Previous menu Enter=Select It</quit>	:em
Connected 0:34:05 Auto detect 9600 8-N-1 SCROLL CAPS NUM	Capture

Figure 4-37 Aging Time Configuration screen

Press "Edit" to input the aging time value and press enter to choose the "save" for save the current configuration. The screen in Figure 4-38 appears.

🏶 WG5D-1020 - HyperTerminal	
File Edit View Call Transfer Help	
De 93 DB 2	
PLANET WGSD-1020 : The Configuration of Aging Time	
MAC Age Interval (sec) [765] : 300 (300~765)	
Actions-> <edit> <save> <quit> Save successfullyt Press any key to returnt Tab=Next Item BackSpace=Previous Item Quit=Previous menu Enter=Select It</quit></save></edit>	em 🗸
Connected 0:09:08 Auto detect 9600 8-N-1 SCROLL CAPS NUM	Capture //

Figure 4-38 Aging time Configuration save successfully screen

Press any key for return to the previous menu.

4.3.2.7.3 Broadcast Storm Filtering

Provide disable and 5, 10, 15, 20 or 25 Broadcast storm filter mode.

🏀 WGSD-1020 - HyperTerminal	
File Edit View Call Transfer Help	
DF 93 DD F	
PLANET WGSD-1020 : Broadcast Storm Filter Mod	de
Broadcast Storm Filter Mode :5	
Actions-> <edit> <save> <quit> Tab=Next Item BackSpace=Previous Item Space=Toggle Ctrl+A=Action</quit></save></edit>	on menu
Connected 0:36:03 Auto detect 9600 8-N-1 SCROLL CAPS	NUM Capture

Figure 4-39 Broadcast storm filter screen

Broadcast Storm Filter setup procedure:

- 1. Press "Edit" to input 5, 10, 15, 20 or 25 broadcast storm filter.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-40 appears.
- 3. Press any key for return to the previous menu.

4.3.2.7.4 Max Bridge Transmit Delay Bound

🏶 WGSD-1020 - Hyp	erTerminal				_ 🗆 🗙
File Edit View Call	Transfer Help				
	PLANET WGSD-102	0: Configui ===	e Max Bridge	Transmit De	lay Bound
	3976	• transmit de ay Bound :Dis Time :0	165	=)	
Actions-> Tab=Next Item Ba	<pre>KEdit> Select skSpace=Previous</pre>		<qu enu. revious menu</qu 	it> Enter=Sele	ct Item
Connected 1:41:50	Auto detect	9600 8-N-1	SCROLL		M Capture

Figure 4-40 Max Bridge transmit delay bound screen

This sub-menu contains three items:

Max bridge transmit delay bound: off (default mode)

Enable Delay Bound: Disabled (default mode)

Max Delay Time: 0 (default mode)

4.3.2.7.4.1 Max bridge transmit delay bound

Provide "OFF" and 1, 2, or 4 sec. for selection.

🏀 WGSD-1020 - HyperTerminal	
File Edit View Call Transfer Help	
D 🖻 🚳 🕒 🖻	
PLANET WGSD-1020 : Configure Max Bridge T	ransmit Delay Bound
Max bridge transmit delay bound : Max Enable Delay Bound :Disabled Max Delay Time :0	
Actions-> <edit> <save> <quit Select the action menu. Tab=Next Item BackSpace=Previous Item Space=Toggle Ctrl</quit </save></edit>	+A=Action menu
Connected 1:44:39 Auto detect 9600 8-N-1 SCROLL	CAPS NUM Capture

Figure 4-41 Max Bridge transmit delay bound screen

Setup procedure:

- 1. Press "Edit" to input OFF and 1, 2 or 4 sec.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-42 appears.

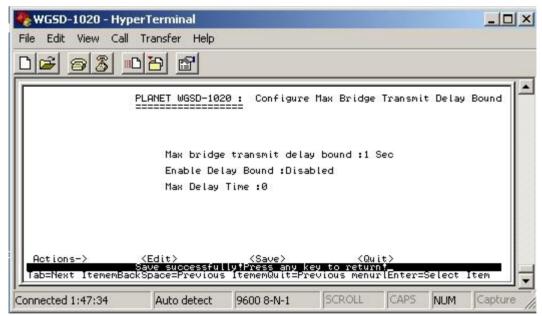


Figure 4-42 Max Bridge transmit delay bound save successfully screen

3. Press any key for return to the previous menu.

4.3.2.7.4.2 Enable Delay Bound

Provide disable or enable **Delay Bound** function.

🏀 WG5D-1020 - HyperTerminal	
File Edit View Call Transfer Help	
PLANET WGSD-1020 : Configure Max Bridge Transmit Delay N	Bound
Max bridge transmit delay bound :1 Sec Enable Delay Bound : Disables_ Max Delay Time :0	
Actions-> <edit> <save> <quit> Select the action menu. Tab=Next Item BackSpace=Previous Item Space=Toggle Ctrl+A=Action menu</quit></save></edit>	
Connected 1:49:33 Auto detect 9600 8-N-1 SCROLL CAPS NUM	Capture

Figure 4-43 Enable Delay Bound screen

Setup procedure:

- 1. Choose disable or enable through the space bar.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-44 appears.

🍓 WGSD-1020 - Hyp	erTerminal				
File Edit View Call	Transfer Help				
02 98 -					
	PLANET WGSD-102	0: Configur ===	e Max Bridge	Transmit Dela	Bound
		transmit del ay Bound :Ena Time :0	-	Sec	
Actions-> Tab=Next ItememBac	<edit> Save successful ckSpace=Previous</edit>	< <u>Save</u> > Ly¶Press any ItememQuit=P	(Qu key to return revious menui	it> rlEnter=Select	Item
Connected 1:52:17	Auto detect	9600 8-N-1	SCROLL	CAPS NUM	Capture

Figure 4-44 Enable Delay Bound save successfully screen

3. Press any key for return to the previous menu.

4.3.2.7.4.3 Max Delay Time

Allow inputting the Max Delay Time.

WGSD-1020 - Hype File Edit View Call						<u>-0×</u>
02 93 0	12 2					
	PLANET WGSD-102	20 : Configur ===	e Max Bridge	Transmi	t Delay	Bound
	576	≀ transmit del. ay Bound :Dis Time :%∎	53.	Sec		
Actions-> Tab=Next Item B	≺Edit> Select ackSpace=Previc	(Save) the action m bus Item Spac	<qu anu. z=Toggle Ct</qu 	it> rl+A=Act	ion men	u -
Connected 1:54:38	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-45 Max Delay Time screen

Setup procedure:

- 1. Press " Edit" to input the Max Delay Time value.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-46 appears.

🏀 WGSD-1020 - Hyp	erTerminal					
File Edit View Call	Transfer Help					
D 🖻 🔊 🖉 🗏						
	PLANET WGSD-102	0 : Configure ===	Max Bridge	Transmi	t Delay	Bound
	_	transmit dela ay Bound :Disa Time :10	-	Sec		
Actions-> Tab=Next ItememBac	<edit> Save successful kSpace=Previous</edit>	≺Save> Ly¶Press any k ItememQuit=Pr	<qu ey to retur evious menu</qu 	it≻ n‡_ rlEnter=	Select	Item
Connected 1:56:47	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-46 Max Delay Time save successfully screen

3. Press any key for return to the previous menu.

4.3.2.8 Main Menu

Return to the main menu.

4.3.3 Protocol Related Configuration

From the Switch main menu screen (see Figure 4-3), highlight Protocol Related Configuration and press enter. The Status and Counters screen in Figure 4-47 appears.

🏀 WGSD-1020 - HyperT	erminal					- 🗆 ×
File Edit View Call Tr	ansfer Help					
<u> 12 93 91</u>	9 🖻					
	PLANET WGSD	-1020 : The A	Protocol Rela	ated conf	igurat	Lon
	s	us NMP				
	-	VRP				
	_	ACP revious Menu				
Tab=Next Item Bac		Spanning Tree	Protocol.	Iton		
Liad=Next Item Bac	xSpace=Previ	ous item i	inter=Select	Item	int in the second s	
Connected 0:47:19	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture //

Figure 4-47 The Protocol Related Configuration screen

This subnet menu contains five items:

STP: please refer to chapter 4.3.3.1.
SNMP: please refer to chapter 4.3.3.2.
GVRP: provide disable or enable GVRP function.
LACP: provide LACP configuration.
Previous Menu: return to Main menu.

4.3.3.1 STP

Provide Spanning Tree configuration.

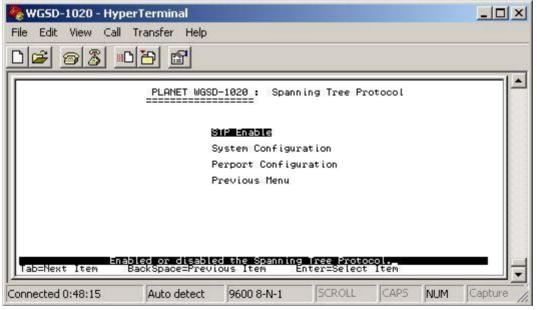


Figure 4-48 Spanning Tree Protocol screen

This sub-menu contains four items:

STP Enable: please refer to chapter 4.3.3.1.1

System Configuration: please refer to chapter 4.3.3.1.2

Per port Configuration: please refer to chapter 4.3.3.1.3

Previous Menu: return to previous menu.

4.3.3.1.1 STP Enable

Provide disable or enable STP function

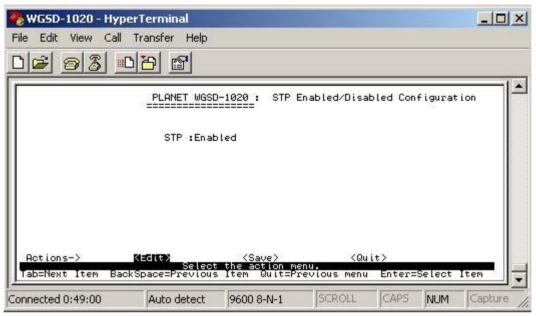


Figure 4-49 STP enable /disable screen

Setup procedure:

- 1. Press " Edit" to disable or enable STP function.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-50 appears.

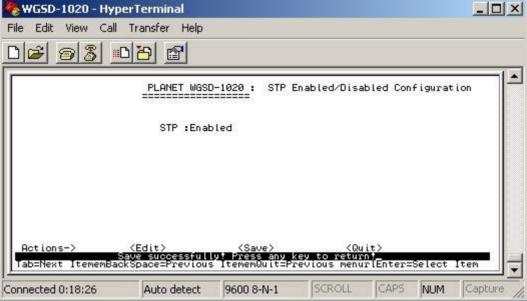


Figure 4-50 STP enable save successfully screen

3. Press any key for return to the previous menu.

4.3.3.1.2 System Configuration

Allow modify the STP system configuration.

🏀 WGSD-1020 - HyperTerminal	
File Edit View Call Transfer Help	
PLANET WGSD-1020 : STP System Configuration	
Root Bridge Information Configure Spanning Tree Parameter	rs
Priority : 32768 Priority (1-65535) :32768 Mac Address : 004063800030	
Root_Path_Cost: 0 Max Age (6-40) :20 Root_Path_Cost: 0 Max Age (6-40) :20	
Max Age : 20 Hello Time (1-10) :2 Hello Time : 2	
Forward Delay: 15 Forward_Delay_Time(4-30) :15	
Actions-> KEGITX (Save) (Quit) Select the action menu. Tab=Next Item BackSpace=Previous Item Quit=Previous menu Enter=Select	st Item
Connected 2:02:30 Auto detect 9600 8-N-1 SCROLL CAPS NUM	M Capture

Figure 4-51 STP system configuration screen

Setup procedure:

- 1. Press " Edit" to modify the Spanning Tree Parameters.
- 2. After modify completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-52 appears.

🏀 WGSD-1020 - HyperTerminal		
File Edit View Call Transfer Help		
PLANET WGSD-1020 :	STP System Configuration	
Root Bridge Information	Configure Spanning Tree Parameters	
Priority : 32768 Mac Address : 004063800030	Priority (1-65535) :32768	
Root_Path_Cost: 0 Root Port : Root	Max Age (6-40) :20	
Max Age : 20 Hello Time : 2	Hello Time (1-10) :2	
Forward Delay : 15	Forward_Delay_Time(4-30) :15	
Actions-> (Edit) Save successfullu) Tab=Next Item BackSpace=Previous Ite	(Save) (Quit) Tress any key to return! em Quit=Previous menu Enter=Select It	:em
Connected 2:05:13 Auto detect 96	00 8-N-1 SCROLL CAPS NUM	Capture /

Figure 4-52 STP system configuration save successfully screen

3. Press any key for return to the previous menu.

4.3.3.1.3 Per Port Configuration

Allow edit per port STP configuration.

🗞 WGSD-1	020 - HyperTerminal			
File Edit	View Call Transfer He	lp		
0 🛩 🧧	3 8 0 8 8			
11		JGSD-1020 : STP	Port Configuration	
Port	PortState	PathCost	Priority	
12:	Disabled Disabled	10 10	128 128	
3. 4. 5.	Disabled Disabled Disabled	10 10 10	128 128 128	
1.0.345.67.8	Disabled Disabled Disabled	10 10 10 10 10 10 10	128 128 128 128 128 128 128 128 128	
	Disabled	10	120	
11				
Actions	-> KQuit> KEdi Select	the Action menu.		(Next Page)
Tab=Next	Item BackSpace=Previ	ious Item Quit=P:	revious menu Enter	=Select Item
Connected 0	:53:29 Auto dete	ct 9600 8-N-1	SCROLL CAPS	NUM Capture

Figure 4-53 STP Port configuration screen

Setup procedure:

- 1. Press " Edit" to modify the path cost and priority of each port.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-54 appears.

	PLANET W	GSD-1020 : STP	⁹ ort Configuration	
Port	PortState	PathCost	Priority	
1. 2:	Disabled Disabled Disabled	10 10	128 128	
100945-61-00	Disabled Disabled	10 10 10 10 10 10 10	128 128 128 128 128 128 128 128 128	
8.	Disabled Disabled Disabled	10 10 10	128 128	
		<u></u>		

Figure 4-54 STP Port configuration screen

3. Press any key for return to the previous menu.

4.3.3.2 SNMP

Provide SNMP configuration.

File Edit View Call						
	PLANET WGS	0-1020 : SNMP	Configurati	on		
	Cor Tra	<mark>stem Options</mark> mmunity String ap Managers evious Menu	53			
	Configure	the sustem inf	ormation.			
Connected 0:55:58	BackSpace=Prev	ious Item 9600 8-N-1	SCROLL	Item CAPS	NUM	Capture

Figure 4-55 SNMP configuration screen

This subnet menu contains four items:

- 1. System Options: please refer to chapter 4.3.3.2.1
- 2. Community Strings: please refer to chapter 4.3.3.2.2
- 3. Trap Managers: please refer to chapter 4.3.3.2.3
- 4. Previous Menu: please refer to chapter 4.3.3.2.4

4.3.3.2.1 System Options

Allow inputting the system name, system location, system contact.

🏶 WGSD-1020 - HyperTerminal	
File Edit View Call Transfer Help	
	1
PLANET WGSD-1020 : System Options Configuration	
System Name :	
System Location :	
System Contact :	
Actions-> KECITE (Save) (Quit)	
Select the action menu. Tab=Next Item BackSpace=Previous Item Quit=Previous menu Enter=Select	st Item 🗖
Connected 2:11:15 Auto detect 9600 8-N-1 SCROLL CAPS NUM	M Capture

Figure 4-56 System Options configuration screen

Setup procedure:

- 1. Press " Edit" to input the system name, system contact, system location.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-57 appears.

🏀 WGSD-1020 - HyperTerminal	
File Edit View Call Transfer Help	
PLANET WGSD-1020 : System Options Configuration	
System Name :WGSD-1020	
System Location :PLANET	
System Contact :Someone	
Actions-> <edit> <save> <quit></quit></save></edit>	-
Save successfully? Press any key to return? Tab=Next Item BackSpace=Previous Item Quit=Previous menu Enter=Select Item	
Connected 2:15:04 Auto detect 9600 8-N-1 SCROLL CAPS NUM Cap	iture //

Figure 4-57 System Options configuration save successfully screen

3. Press any key for return to the previous menu.

4.3.3.2.2 Community Strings

Allow adding SNMP community name.

🍓 WGSD-1020 - Hype	rTerminal					<u>- 0 ×</u>
File Edit View Call	Transfer Help					
02 03 0	8					
	PLANET WGSD	-1020 : SNMP	Community C	onfigura	tion	
Community Name	Write	Access				
public	Restri	cted				
Actions-> KHO Tab=Next Item Back	d) (Edit) HGGZEGITZUS Space=Previous	lete community	(Save strings. evious menu	> < Enter=	Quit> Select	Item
Connected 1:03:36	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-58 SNMP Community configuration screen

- 1. Press "Add" to enter into "add SNMP community" screen, then press "Edit" a new community name and adjust the write access mode..
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-59 appears.

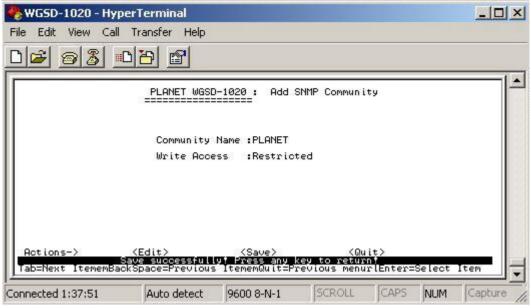


Figure 4-59 Add SNMP Community name save successfully screen

4.3.3.2.3 Trap Managers

Allow adding Trap Managers.

WGSD-1020 - I	HyperTerminal	
e Edit View (Call Transfer Help	
6 8		
	PLANET WGSD-1020 : Trap Managers Configu	ration
IP	Community Name	
Actions->	KHEEN (Edit) (Delete) (Save) Hed/Edit/Delete trap Managers. BackSpace=Previous Item Quit=Previous menu Ent:	<quit></quit>
ab=Next Item	BackSpace=Previous Item Quit=Previous menu Ent	er=Select Item
nnected 1:06:00	Auto detect 9600 8-N-1 SCROLL CAP	PS NUM Capture

Figure 4-60 Add SNMP Community name screen

- 1. Press "Add" to enter into "Trap Managers" screen, then press "Edit" for input IP address and Community name.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-61 appears.

🗞 WGSD-1020 - Hyp	erTerminal					_0:
File Edit View Call	Transfer Help					
0 🖻 🔊 🖉 🗖						
	PLANET WGSI	0-1020 : Edit	Trap Manage	rs		
	IP :192.10	58.0.1				
	Community	Name :PLANET				
Actions-> Tab=Next Item Bac	<edit> ave successful xSpace=Previous</edit>	(Save)	(Qu ey to retur	it> ni	Salaat	ton
onnected 1:58:49	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-61 Add Trap managers screen

4.3.3.2.4 Previous Menu

Return to the previous menu.

4.3.3.3 GVRP

Provide disable or enable GVRP function

🍓 WGSD-1020 - Hyp	erTerminal					_ 🗆 🗙
File Edit View Call	Transfer Help					
D 2 93 -						
	PLANET WGSD)-1020 : GVRP	Configurati	on		
	GVRP : Ena	abled				
Actions-> Tab=Next ItememBad	KEGIT> Select Space=Previous	<save> the action me ItememQuit=P;</save>	≺Qu mu. ≌ovious menu	it≻ rlEnter=	Select	Item
Connected 1:08:50	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-62 GVRP screen

- 1. Press "Edit" to disable or enable the GVRP function.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-63 appears.

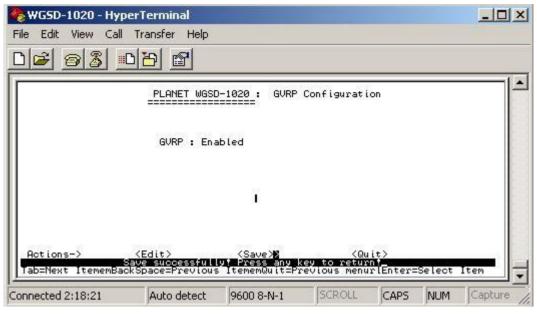


Figure 4-63 GVRP save successfully screen

4.3.3.4 LACP

🍓 WGSD-1020 - Hyp	erTerminal					_ 🗆 🗙
File Edit View Call	Transfer Help					
02 93 -						
	PLANET WGSD)-1020 : LACP	Configurati	on		
		regator Setti	a.			
		ate Activity P Status				
		vious Menu				
Tab=Next Item	BackSpace=Previ	ACP setting. Lous Item	Enter=Select	Item		
Connected 1:11:17	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-64 LACP Configuration screen

This subnet menu contains four items:

- 1. Aggregator Settings: please refer to chapter 4.3.3.4.1.
- 2. State Activity: please refer to chapter 4.3.3.4.2
- 3. LACP Status: please refer to chapter 4.3.3.4.3
- 4. Previous Menu: please refer to chapter 4.3.3.4.4

4.3.3.4.1 Aggregator Settings

Allow editing the LACP Group configuration.

🍓 WGSD-1020 - Hyp	erTerminal				
File Edit View Call	Transfer Help				
D 🖻 🞯 🔏 🗉	1 <u>8</u> <u>8</u>				
	PLANET WGSD)-1020 : LACP	Group Confi	guration	
	Group	LACP	LACP Work Po	rt Num	
Actions->	KEGITER	<save></save>	<qu< td=""><td>it></td><td></td></qu<>	it>	
Tab=Next ItememBac	kSpace=Previous	the action m ItememQuit=P	revious menu	rlEnter=Sel	ect Item
Connected 1:11:40	Auto detect	9600 8-N-1	SCROLL	CAPS N	UM Capture

Figure 4-65 Aggregator settings screen

4.3.3.4.2 State Activity

Allow to set LACP port state activity of each port.

🏀 WGSD-1020 - Hyp	erTerminal					
File Edit View Call	Transfer Help					
D 🖻 🔊 🖉 💻						
	PLANET WGSE	0-1020 : LACP F	Port State	Active C	onfigur	ation
	Port	State Activ	vity			
	123	H ctive Passive Passive	19250			
	-2007410-60-00	Passive Passive Passive Passive Passive				
Actions-> Tab=Next ItememBad	<edit></edit>	<save> the action men themenuit=Em</save>	<qu< td=""><td>it></td><td>Coloot</td><td></td></qu<>	it>	Coloot	
Liab=next ItememBa	ckspace=Previous	s itememQuit=Pre	evious menu	rienter=	Select	Item 📕
Connected 1:13:31	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture //

Figure 4-66 LACP port state Active configuration screen

- 1. Press "Edit" for "passive" or "Active" selection of each port.
- 2. After setup completed, press" **Ctrl-A**" to "**Action menu**" and choose "**save**" to save the current configure. The screen in Figure 4-67 appears.

🌄 WGSD-1020 - Hyp						<u> </u>
File Edit View Call	Transfer Help					
	PLANET WGS)-1020 : LACP	Port State	Active (Configur	ation
	Port	State Act	ivity			
	1 20 34	Active Passive Passive Passive				
	4009415467-8	Passive Passive Passive Passive				
Actions-> Tab=Next ItememBa	<pre></pre>	<save≻ ∪† Press any i ItememQuit=P:</save≻ 	2Qر ey to retur revious menu	iit> n† irlEnter=	Select	Item
Connected 2:53:00	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-67 LACP port state Active configuration screen

4.3.3.4.3 LACP Status

Display the LACP groups status.

🍓 WGSD-1020 - HyperTerminal	
File Edit View Call Transfer Help	
PLANET WGSD-1020 : LACP Group Status	
NO GROUP ACTIVE	
Actions-> KOUTTE (Previous Page) (Next Page) Select the action menu. Tab=Next Item BackSpace=Previous Item Quit=Previous menu Enter:	=Select Item_
Connected 1:15:59 Auto detect 9600 8-N-1 SCROLL CAPS	NUM Capture

Figure 4-68 LACP Group Status screen

4.3.3.4.4 Previous Menu

Return to the previous menu.

4.3.3.5 Main Menu

Return to the main menu.

4.3.4 Reboot Switch

Provide reboot the Switch and reset to switch to default mode.

🏀 WGSD-1020 - Hyp	erTerminal					
File Edit View Call	Transfer Help					
D 🖻 🔊 🖉 🗉	12 2					
	PLANET WGSD	-1020 : Rest:	art Configur	ation		
		efault				
	R	estart				
Tab=Next Item	P BackSpace=Previ	revious Menu ering to defau	lt.	Item		
	BackSpace_Frevi	ous item i	inter-setect	ICEN		
Connected 1:18:38	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture //

Figure 4-69 Reboot Switch screen

This subnet menu contains three items:

- 1. Default: please refer to chapter 4.3.4.1.
- 2. Restart: please refer to chapter 4.3.4.2.
- 3. Previous Menu: refer to chapter 4.3.4.3

4.3.4.1 Default

Reset the Switch to the factory default mode. The screen in Figure 4-70 appears.

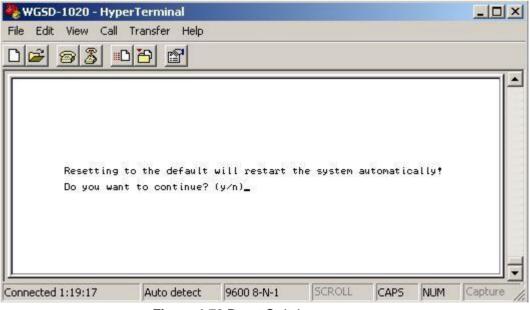


Figure 4-70 Reset Switch screen

Press "Y" for reboots the switch to default mode. The following screen appears in Figure 4-71.



Figure 4-71 Resetting Switch screen

4.3.4.2 Restart

Provide restart the Switch. The screen in Figure 4-72 appears.

🍓 WGSD-1020 - Hyp	erTerminal	Statement of the local division of				- O ×
File Edit View Call	Transfer Help					
D 2 98 -						
	Mair ====	Menu =====				
	Status ar	d Counters				
	Switch St	atic Configura	ation			
	Protocol	Related Config	guration			
	Reboot Su	iitich				
	Command L	ine.				
	Logout					
SSS Switch (0905)	Rest R Checksum O.K	art the system). nter=Select	Item		
\$\$\$ Switch LOADER \$\$\$ Press X key 1	to start Xmoder	receiver: _	inver-sereco	Iven		
Connected 1:26:06	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture //

Figure 4-72 Restart Switch screen

4.3.4.3 Previous Menu

Return to the main menu.

4.3.5 Command Line

Provide system command for WGSD-1020. The screen in Figure 4-73 appears.

🌄 WGSD-1020 - Hyp	erTerminal					
File Edit View Call	Transfer Help					
D 🖻 🔊 🦉 📕						
TNET>						
Connected 1:28:22	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-73 Command line screen

Type "Help" command for helps parameters. The screen in Figure 4-74 appears.

🍓 WGSD-1020 - Hype	rTerminal					
File Edit View Call	Transfer Help					
02 28 0	8					
INET>help help param advance port v stp gos i INET>_	neters: Jan fdb gmp console	trkgrp				
Connected 1:30:27	Auto detect	9600 8-N-1	SCROLL	CAPS	NUM	Capture

Figure 4-74 Help parameters screen

4.3.6 Logout

Provide logout the Switch.

5. WEB MANAGEMENT

Before login the Web interface of WGSD-1020, please setup the **"IP Address"** with local serial console port(RS232 port) and use this IP address to configure WGSD-1020 through the **Telnet** and **Web** interface.

Or modify your PC's IP domain to the same with WGSD-1020 then use the default IP address to remote configure WGSD-1020 through the **Telnet** and **Web** interface.

5.1 Login in to the Switch

To access the Web-browser interface you must first enter the user name. The default user name is **"admin"** without password. You will see the following screen comes out on the Web browser program:



Figure 5-1 The WGSD-1020 login screen

After the Username and Password is entered, you will see the main menu screen.

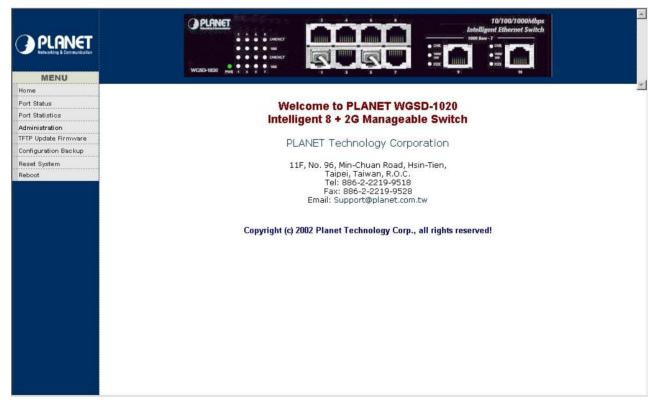


Figure 5-2 The main screen of WGSD-1020 Web Page

5.2 Port Status

This section provides detail status of each port from WGSD-1020.

Administration The following information provides a view of the current status of the unit. TFTP Update Firmware Configuration Backup	PLENET MENU Home Port Status Port Status	<u>Port</u>	Status							Intellige - 1000 Suo -	• 1782 • 1782 • 1787 • 1787 • 1797 • 1797 • 1797 • 1797 • 1797	t Switch
Configuration Backup Reset System Port Num State Link State Negotiation State Speed State Duplex State Flow Config Actual Config Config	Administration	-	The follo	wing info		rovides a						
NumConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfigActualConfig </th <th>Configuration Backup</th> <th>State</th> <th></th> <th></th> <th></th> <th>ation</th> <th>Speed</th> <th>Status</th> <th>Duplex</th> <th>Status</th> <th>Flow C</th> <th>ontrol</th>	Configuration Backup	State				ation	Speed	Status	Duplex	Status	Flow C	ontrol
Reboot 1 On On Up Auto Auto 100 Full Full Off Off 2 On Off Down Auto Auto 100 100 Full Full Off On 3 On Off Down Auto Auto 100 100 Full Full Off On 4 On Off Down Auto Auto 100 100 Full Full Off On 5 On Off Down Auto Auto 100 100 Full Full Off On 5 On On Up Auto Auto 100 100 Full Full Off Off 6 On Off Down Auto Auto 100 Full Full Off On 7 On Off Down Auto Auto 100	Num	Config	Actual	Status	Config	Actual	Config	Actual	Config	Actual	Config	Actual
2 On Off Down Auto Auto 100 Full Full Off On 3 On Off Down Auto Auto 100 100 Full Full Off On 4 On Off Down Auto Auto 100 100 Full Full Off On 5 On Off Down Auto Auto 100 100 Full Full Off On 6 On Off Down Auto Auto 100 100 Full Full Off Off 7 On Off Down Auto Auto 100 100 Full Full Off On 7 On Off Down Auto Auto 100 100 Full Full Off On 8 On Off Down Auto Auto 100				Up	1000			1		11		
4 On Off Down Auto Auto 100 Full Full Off On 5 On On Up Auto Auto 100 100 Full Full Off Off 6 On Off Down Auto Auto 100 100 Full Full Off On 7 On Off Down Auto Auto 100 100 Full Full Off On 8 On Off Down Auto Auto 100 I00 Full Full Off On 9 On Off Down Auto Auto 100 I00 Full Full Off On	2	On	Off	-	Auto	Auto	100	100	Full	Full	Off	On
5 On On Up Auto Auto 100 Full Full Off Off 6 On Off Down Auto Auto 100 100 Full Full Off On 7 On Off Down Auto Auto 100 100 Full Full Off On 8 On Off Down Auto Auto 100 Full Full Off On 9 On Off Down Auto Auto 100 Full Full Off On	3	On	Off	Down	Auto	Auto	100	100	Full	Full	Off	On
6 On Off Down Auto Auto 100 Full Full Off On 7 On Off Down Auto Auto 100 Full Full Off On 8 On Off Down Auto Auto 100 Full Full Off On 9 On Off Down Auto Auto 100 Full Full Off On	4	On	Off	Down	Auto	Auto	100	100	Full			
7 On Off Down Auto Auto 100 Full Full Off On 8 On Off Down Auto Auto 100 100 Full Full Off On 9 On Off Down Auto Auto 100 100 Full Full Off On		On							1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			
8 On Off Down Auto Auto 100 Full Full Off On 9 On Off Down Auto Auto 100 100 Full Full Off On												
9 On Off Down Auto Auto 1000 100 Full Full Off On								-				
						and the second second second						
		Un	υπ	Down	Auto	Auto	1000	100	Full	Full	υπ	Un

Figure 5-3 WGSD-1020 Port Status Web Page screen

State: display the link state of each port on WGSD-1020.

Link Status: the state of the link test, indicating a valid link partner device. "Up" means a device is successful

connected to the port. "Down" means no device is connected.

Auto-Negotiation: auto-negotiation state of each port on WGSD-1020.

Speed Status: display the speed state of each port on WGSD-1020.

Duplex Status: display the speed duplex mode of each port on WGSD-1020.

Flow Control: display the flow control state of each port on WGSD-1020.

Config: display the current configuration of each port.

Actual: display the current state of each port on WGSD-1020.

5-3 Port Statistics

For those selected port, this function could provide you with an individual statistical counter. It is a useful page for administrator to monitor each port's usage condition. Also, it is helpful to troubleshooting network problems. Please note that the updating rate is defined in System Configuration menu.

Figure 5-4 WGSD-1020 Port Statistics Web Page screen

5-4 Administrator

This section contains management function on WGSD-1020.



Figure 5-5 WGSD-1020 Administrator Web Page screen

This management function is shown as below: IP Address: please refer to section 5.4.1 Switch Settings: please refer to section 5.4.2 Console Port Information: please refer to section 5.4.3 Port Controls: please refer to section 5.4.4 Trunking: please refer to section 5.4.5 Filter Database: please refer to section 5.4.6 VLAN Configuration: please refer to section 5.4.7 Spanning Tree: please refer to section 5.4.8 Port Sniffer: please refer to section 5.4.9 SNMP: please refer to section 5.4.10 Security Manager: please refer to section 5.4.11

5.4.1 IP Address

This section allows modify the IP address, Subnet Mask, Gateway of WGSD-1020.

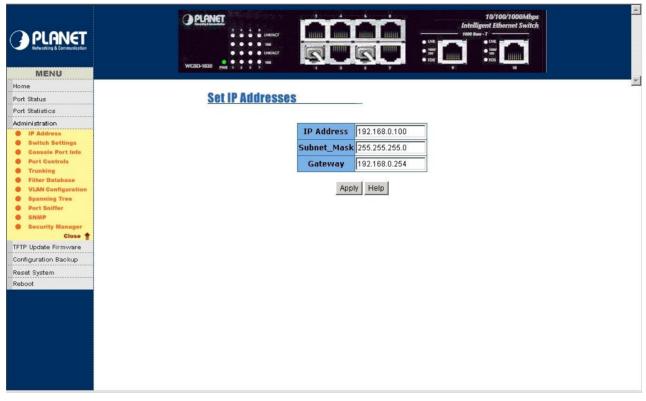


Figure 5-6 WGSD-1020 modify IP Address Web Page screen

After modifying the new IP address, Subnet Mask, Gateway, please click "**Apply**" button then the following screen in Figure 5-7 appears. Click "**Reboot**" button. WGSD-1020 will reboot to take effect for the new IP address, Subnet Mask, Gateway.

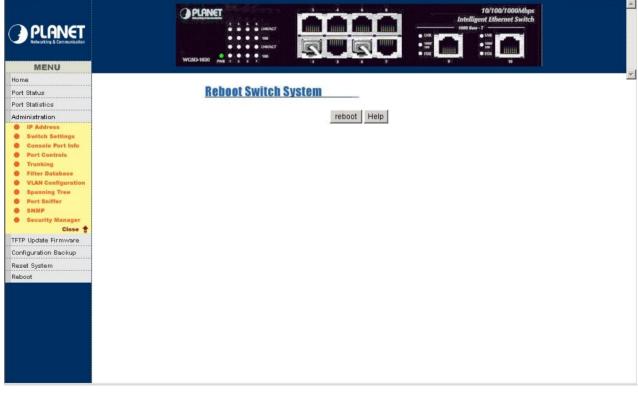


Figure 5-7 WGSD-1020 Reboot Switch System Web Page screen

You can click" Help" button; the IP Address Overview screen in Figure 5-8 appears.



Figure 5-8 WGSD-1020 IP Address Overview Web Page screen

Click "Close" to close this screen.

5.4.2 Switch Settings

This section provide Switch basic information and allow modify the Switch settings

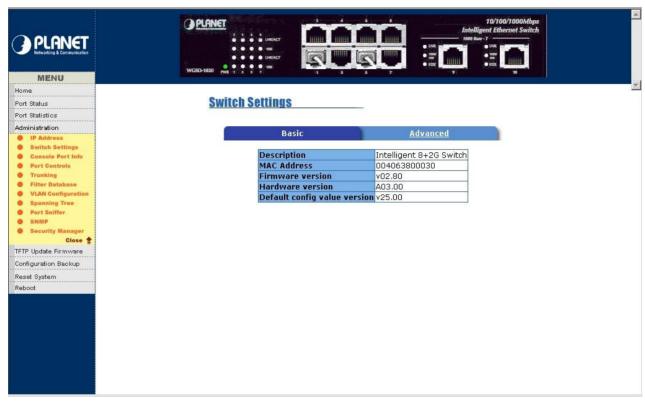


Figure 5-9 WGSD-1020 Switch Basic Settings Web Page screen

5.4.2.1 Basic:

Description: display the Switch system name.

MAC address: display the Switch MAC Address.

Firmware version: display the Switch current firmware version.

Hardware version: display the Switch current hardware version.

Default config value version: display the default eeprom version.

	To/100/1000Mbps Intelligent Ethernet Switch WCSD-1620 WC
MENU	
Home	
Port Status	Switch Settings
Port Statistics	
Administration	Basic Advanced
 IP Address Switch Settings 	
Console Port Info	Enter the settings, then click Submit to apply the changes on this page.
Port Controls	MAC Table Address Entry Age-Out Time: 300 seconds
 Trunking Filter Database 	Winder Table Address End y Age-out Time, 1999 Seconds
VLAN Configuration	Max bridge transmit delay bound control: OFF 🗾
 Spanning Tree Port Sniffer 	
SNMP	Broadcast Storm Filter Mode: OFF 💌
Security Manager	Priority Queue Service:
Close 會	
Configuration Backup	O First Come First Served
Reset System	C All High before Low
Reboot	1
	© WRR High weight: 2
	High weight; 2
	🗖 Enable Delay Bound 🛛 Max Delay Time: 🛛 ms
	QoS Policy: High Priority Levels
	🗌 Levelo 🗆 Level 1 🗖 Level 2 🗖 Level 3 🛛 🔽 Level 4 🗹 Level 5 🗹 Level 6 🗹 Level 7
	Distance Enable Catting:

Figure 5-10 WGSD-1020 Switch Advanced Settings Web Page screen

5.4.2.2 Advanced:

Enter the settings, then click Submit to apply the changes on this page.

MAC Table Address Entry Age-Out Time: type the number of seconds that an inactive MAC address remains in the Switch's address table. The valid range is 300-765 seconds. The default value is 300 sec.

Max bridge transmit delay bound control: limit the packets queuing time in switch, if enable this function, the packets queued exceed will be drop. The valid value is 1 sec., 2 sec. and 4 sec. and off. Default value is 2 sec.

Broadcast Strom Filter mode: provide 5%, 10%, 15%, 20%, 25% and off for broadcast storm control activity.

Priority Queue Service:

First Come First Served: the sequence of packets sent is depend on arrive order.

All High before Low: the high priority packets sent before the low priority packets.

WRR (Weighted Round Robin): select the preference given to packets in the Switch's high-priority queue. These options represent the number of high priority packets sent before one low priority packet. For example: High weight: 5 and Low weight 2. It means WGSD-1020 sends 5 high priority packets before sending 2 low priority packets.

Enable Delay Bound: limit the low priority packets queuing time in WGSD-1020. Default maximum delay time is 255 ms. If the low priority packet stays in Switch exceed Max delay time, it will be sent. The valid range is 1-255 ms.

QoS Policy: High Priority Levels: provide 0-7 priority levels can map to high or low queue.

Protocol Enable Setting

Enable STP Protocol: provide disable or enable STP protocol. Default mode is enabling.

Enable IGMP Protocol: provide disable or enable IGMP protocol. Default mode is enable.

VLAN Operation Mode: IEEE 802.1Q(Port-based) with GVRP VLAN mode.

IEEE 802.Q(Port-based) without GVRP VLAN mode.

Port-based VLAN mode

Note: Make sure of "Max bridge transit delay bound control" is enabled before enabling delay bound, because enable delay bound must work under "Max bridge transit delay bound control" is enabled.

You can click "Help" button; the following screen in Figure 5-11 appears.

onfiguring the Switch	
nced switch settings	
MAC Address Age-out Time Type the number of seconds that an inactive MAC address remains in the switch's address table. Default is 300 seconds.	
Max bridge transit delay bound control Limit the packets queuing time in switch. If enable, the packets queued exceed will be drop.	
Broadcast Storm Filter To configure broadcast storm control, enable it and set the upper threshold for individual ports. The threshold is the percentage of the port bandwidth used by broadcast traffic. When broadcast traffic for a port rises above the threshold you set, broadcast storm control becomes	
ty Queue Service settings	
Fisrt Come First Service The sequence of packets sent is depend on arrivaling order.	
All High before Low The high priority packets sent before low priority packets.	
Weighted Round Robin Select the preference given to packets in the switch's high-priority queue. These options represent the number of high priority packets sen one low priority packet is sent. For example, 5 High : 2 Low means that the switch sends 5 high priority packets before sending 2 low priori	
Enable Delay Bound Limit the low priority packets queuing time in switch. Default Max Delay Time is 255ms. If the low priority packet stays in switch exceed Max Time, it will be sent.	(Delay
col Enable Setting	
Spanning Tree Protocol	
Internet Group Multicast Protocol	
VLAN Protocol	
O Non VLAN mode	
O 802.1Q(Port_Based) without GVRP VLAN mode Support 802.1Q Tag_Based/Port_Based VLAN but no support GVRP dynamic VLAN.	
O 802.1Q(Port_Based) with GVRP VLAN mode Support 802.1Q Tag_Based/Port_Based VLAN and GVRP dynamic VLAN.	
Close	

Figure 5-11 WGSD-1020 Configuring the Switch Web Page screen

Click "Close" to close this screen.

5.4.3 Console Port Information

Display the WGSD-1020 console port information.

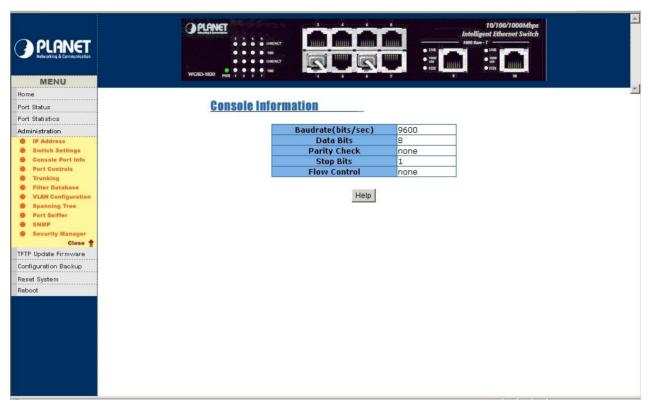
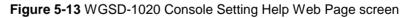


Figure 5-12 WGSD-1020 Console Information Web Page screen

You can click "Help" button; the following screen in Figure 5-13 appears.

🚰 Port Trunking Management Help - Microsoft Internet Explorer	8×
Console Setting Help	
Console is a standard UART interface to communicate with Serial Port.	
You can use windows hyperterminal program to link the switch.Connect To->Configure	
Bits per seconds:9600 Data bits:8 Parity:none Stop bits:1 Flow control:none Setting->ASCII Setup:you must check	
<*>Append line feeds to incoming line <*>Wrap lines that exceed terminal width	
Close	



Click "Close" to close this screen.

5.4.4 Port Controls

This section introduces detail settings of per port on WGSD-1020.

	VICSD	1820 MR		140 140 140 140 140				W.		Intellige 1000 Saw	10/100/100 nt Ethernel T UNK 100 TIN TIN 100 100 100 100 100 100 100 100 100 10	t Switch	
Home		Bort	Contro	ale									
Port Status		FUIL	GUIILI	112			12						
Port Statistics						Auto	-	and the second		Flow			
Administration			Port	State	e Ne	gotiatio	n Spe	ed Dup		ontrol			
IP Address							-	2					
Switch Settings			1	En alt/			1 4000						
Console Port Info			3	Enable		nable 💌	1000	Full		sable 💌			
Port Controls			4 🕶										
Trunking							. 1				1		
Filter Database						A	oply						
VLAN Configuration													
 Spanning Tree Port Sniffer 		_											
Port annier		Bort	Status										
SNMP		FULL	Status				_						
SNMP Security Manager		1		4			-						
 SNMP Security Manager Close ¹/₂ 		1		4	rmation p	rovides a	– i view of t	the currer	nt status (of the uni	it.		
Security Manager	_			4		rovides a	1						
Security Manager Close TFTP Update Firmware	Port	1		4	Auto		view of t Speed				t. Flow C	ontrol	
Security Manager Close FTP Update Firmware Configuration Backup	Port Num	State	The follo	wing info	Auto Negotia	ation	Speed	Status	Duplex	Status	Flow C	and the second of	
Security Manager Close 🔮 FTP Update Firmware Configuration Backup Reset System	Num	State Config	The follo	ving info Link Status	Auto Negotia Config	ation Actual	Speed Config	Status Actual	Duplex Config	Status Actual	Flow C Config	Actual	
Security Manager Close F IFTP Update Firmware Configuration Backup Reset System	Num 1	State Config On	The follo Actual On	wing infor Link Status Up	Auto Negotia Config Auto	ation Actual Auto	Speed Config 100	Status Actual	Duplex Config Full	Status Actual Full	Flow Config	Actual Off	
Security Manager Close TFTP Update Firmware Configuration Backup Reset System	Num 1 2	State Config On On	The follo Actual On Off	uing infor Link Status Up Down	Auto Negotia Config Auto Auto	Actual Auto Auto	Speed Config 100 100	Status Actual 100 100	Duplex Config Full Full	Status Actual Full Full	Flow Config	Actual Off On	
Security Manager Close TFTP Update Firmware Configuration Backup Reset System	Num 1 2 3	State Config On On On	The follo Actual On Off Off	uing infor Link Status Up Down Down	Auto Negotia Config Auto Auto Auto	Actual Actual Auto Auto Auto	Speed Config 100 100 100	Status Actual 100 100 100	Duplex Config Full Full Full	Status Actual Full Full Full	Flow C Config Off Off Off	Actual Off On On	
Security Manager Close TFTP Update Firmware Configuration Backup Reset System	Num 1 2 3 4	State Config On On On On	The follo Actual On Off Off	Link Status Up Down Down Down Down	Auto Negotia Config Auto Auto Auto Auto	Actual Auto Auto Auto Auto Auto	Speed Config 100 100 100 100	Status Actual 100 100 100 100	Duplex Config Full Full Full Full	Status Actual Full Full Full Full	Flow Config Off Off Off Off	Actual Off On On On	
Security Manager Close F IFTP Update Firmware Configuration Backup Reset System	Num 1 2 3 4 5	State Config On On On On On	The follo Actual On Off Off Off On	Link Status Up Down Down Down Up	Auto Negotia Config Auto Auto Auto Auto Auto	Actual Auto Auto Auto Auto Auto Auto	Speed 100 100 100 100 100	Status Actual 100 100 100 100 100 100 100 100	Duplex Config Full Full Full Full Full	Status Actual Full Full Full Full Full	Flow C Config Off Off Off Off	Actual Off On On On Off	
Security Manager Close TFTP Update Firmware Configuration Backup Reset System	Num 1 2 3 4 5 6	State Config On On On On On On	The follo Actual On Off Off Off On Off	Link Status Up Down Down Down Up Down	Auto Negotia Config Auto Auto Auto Auto Auto Auto	Actual Auto Auto Auto Auto Auto Auto Auto	Speed Config 100 100 100 100 100 100	Status Actual 100 100 100 100 100 100 100 100 100	Duplex Config Full Full Full Full Full Full	Status Actual Full Full Full Full Full Full	Flow C Config Off Off Off Off Off	Actual Off On On On Off On	
Security Manager Close TFTP Update Firmware Configuration Backup Reset System	Num 1 2 3 4 5 6 7	State Config On On On On On On On	Actual On Off Off Off Off Off Off	Link Status Up Down Down Down Up Down Down Down	Auto Negotia Config Auto Auto Auto Auto Auto Auto Auto Auto	Actual Auto Auto Auto Auto Auto Auto Auto Auto	Speed Config 100 100 100 100 100 100 100 10	Status Actual 100 100 100 100 100 100 100	Duplex Config Full Full Full Full Full Full Full	Status Actual Full Full Full Full Full Full Full	Flow Config Off Off Off Off Off Off Off	Actual Off On On On Off On On	
Security Manager Close TETP Update Firmware Configuration Backup Reset System	Num 1 2 3 4 5 6 7 7 8	State Config On On On On On On On On	Actual On Off Off Off Off Off Off Off	Link Status Up Down Down Down Up Down Down Down Down	Auto Negotia Config Auto Auto Auto Auto Auto Auto Auto Auto	Actual Auto Auto Auto Auto Auto Auto Auto Auto	Speed Config 100 100 100 100 100 100 100 100	Actual 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	Duplex Config Full Full Full Full Full Full Full Ful	Status Actual Full Full Full Full Full Full Full F	Flow C Config Off Off Off Off Off Off Off	Actual Off On On Off On On On On	
Security Manager Close TFTP Update Firmware Configuration Backup	Num 1 2 3 4 5 6 7	State Config On On On On On On On	Actual On Off Off Off Off Off Off	Link Status Up Down Down Down Up Down Down Down	Auto Negotia Config Auto Auto Auto Auto Auto Auto Auto Auto	Actual Auto Auto Auto Auto Auto Auto Auto Auto	Speed Config 100 100 100 100 100 100 100 10	Status Actual 100 100 100 100 100 100 100	Duplex Config Full Full Full Full Full Full Full	Status Actual Full Full Full Full Full Full Full	Flow Config Off Off Off Off Off Off Off	Actual Off On On On Off On On	

Figure 5-14 WGSD-1020 Port Controls Web Page screen

State: provide disable or enable any port of WGSD-1020.

Auto-Negotiation: allow disable or enable Auto-negotiation of any port on WGSD-1020.

Speed: allow set various speed mode of any port on WGSD-1020.

Duplex: allow to set half or full duplex mode of any port on WGSD-1020.

Flow Control: provide disable or enable flow control function.

5.4.5 Trunking

This section displays the screen for trunking a group of ports together to speed up data transmission.

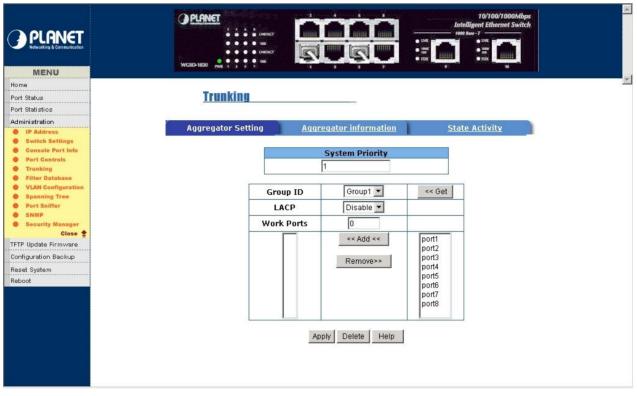


Figure 5-15 WGSD-1020 Trunking Web Page screen

5.4.5.1 Aggregator Setting parameters:

- **System Priority:** A value used to identify the active LACP. The Switch with lowest value has the highest priority and is selected as the active LACP.
- Group ID: After creating a new link aggregation across two or more ports, choose the "Group ID" and click "Get".
- LACP: If enable LACP, the trunk group is LACP static trunking group. If disable LACP, then the trunk group is local static trunking group. All port support LACP dynamic trunking group, if connecting the device that also support LACP, the LACP dynamic trunking group will be create automatically.
- **Work Ports:** the max number of ports can be aggregate at the same time. Under LACP static trunking mode, if one of port fail, the exceed ports is standby and able to aggregate. Under local static trunking group, the member must be the same as group ports.
- Add: select the ports to join the trunking group. If enable LACP, you can configure LACP Active/ Passive status in each ports. Click "Apply" to take effect.

Remove: select the ports to remove the trunking group. Click "Apply" to take effect.

You can click" Help" button; the IP Address Overview screen in Figure 5-16 appears.

C	onfiguring Link Aggregation
	aggregation lets you group up to eight consecutive ports into a single dedicated connection. This feature can expand bandwidth to a device on the ork, such as another switch or a server.
ю	create a link aggregation across two or more ports
1.	From the main menu, choose the "group id" and click "Get".
2.	Link Aggregation Control Protocol. If enable, the group is LACP static trunking group. If disable, the group is Local static trunking group.
	Note: All ports support LACP dynamic trunking group. If connecting to the device that also supports LACP, the LACP dynamic trunking group will be created automatically.
з.	Work ports. The max number of ports can be aggregated at the same time. If LACP static trunking group, the exceed ports is standby and able to aggreate if work ports fail. If local static trunking group, the number must be the same as group ports.
4.	Select the ports to join the trunking group
5.	If LACP enable, you can configure LACP Active/Passive state in each ports
6.	Click Apply.
	Close

Click "Close" to close this screen.

5.4.5.2 Port aggregator status:

Provide the Port Aggregator information.

	VCSD-1920 VIII 1 1 1 1 1 1 1 1 1		10/100/1000Abps Intelligent Ethernet Switch
MENU Iome			
	Trunking		
Port Status	IFUIKIII		
Port Statistics			
Administration	Aggregator Setting	Aggregator information	State Activity
IP Address	Augi equitor Setting	Aggregator mormation	State ALUVILY
Switch Settings	233 377		
Console Port info Port Controls	The fol	lowing information provides a view o	f LACP current status.
Trunking		NO GROUP ACTIVE	E .
Filter Database		NO GROOP ACTIVE	-:
VLAN Configuration			
Spanning Tree			
Port Sniffer			
SNMP			
Security Manager Close ⁺			
FTP Update Firmware			
Configuration Backup			
Reset System			
Reboot			

Figure 5-17 WGSD-1020 Trunk information Web Page screen

Please check the detail description of parameters as below:

Actor: oneself device.

Partner: link partner device.

Admin: Switch default value.

Oper: user setting and aggregating result.

Priority: System priority value.

MAC Address: Switch's MAC Address.

Key: aggregating key:

100 serial is LACP static trunking. 60000 serial is LACP dynamic trunking. I.e:101: 100MB group 1's LACP static trunking, 102:100MB Group 2's LACP static trunking. 60010: 10MB LACP dynamic trunking.

Port Priority: always is 1.

Port State:

Active: ON: active status. OFF: passive status.

Timeout: ON: short timeout (30 sec.). OFF: long timeout (90 sec.).

Aggregation: ON: this link to be aggregating able. OFF: this link to be individual.

SYNC: ON: synchronization status, it has been allocated to the link aggregation information.

OFF: asynchronization status, it's not in the correct aggregation.

Collect: ON: enable collection of incoming frames. OFF: disable collection of incoming frames.

Distribute: ON: enable distribution of outgoing frames. OFF: disable distribution of outgoing frames.

- **Default:** ON: in default setting value, using admin configured for the partner. OFF: the operational partner information for receive in a LACPDU.
- **Expired:** ON: the receive machine is in the expired state. OFF: the receive machine is not in the expired status.

Speed: display port link speed status.

Full-duplex: display port link duplex status, LACP operation requires full-duplex mode.

LACP enable: display LACP status.

Trunk enable: display local trunk status.

Port enable: display port status.

5.4.5.3 State Activity

Allow setting the LACP State Activity of each port.

MENU Museulan watis is i		PLANET 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <th></th> <th></th> <th></th> <th>10/100/1000ME igent Ethernet Swit • TA • TAR • TAR • TAR</th>				10/100/1000ME igent Ethernet Swit • TA • TAR • TAR • TAR
Port Status Trunking Port Statistics Administration • IP Address • Switch Settings • Console Port Info • Port Controls • Trunking • Trunking • Trunking • Trunking • Organization • Switch Settings • Trunking • Trunking • Trunking • Trunking • Trunking • VLAN Configuration • SNMP • Sourity Manager Close € TFTP Update Firmware Configuration Backup Reset System	MENU	HTESEPIDZO PWR T 3 T 7	1 1 1	,		10
Port Statistics Administration ● IF Address ● Switch Settings ● Console Port Info ● Port Controls ● Filter Database ● VLNN Configuration ● Port Shiffer ● SNMP ● Sourity Manager Close * TETP Update Firmware Configuration Backup Reset System	lome					
Administration Aggregator Setting Aggregator information State Activity ● IP Address Switch Settings Ocnose Port Info Port LACP State Activity Port LACP State Activity I I I Active S I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I <td>Port Status</td> <td>Trunking</td> <td></td> <td></td> <td></td> <td></td>	Port Status	Trunking				
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P Address Switch Sstrings Console Port Info Port Controls Trunking Filter Database VLAN Configuration Spanning Tree Port Saiffer Solution Saiffer Saiffer Solution Saiffer Solution Saiffer	Administration	Aggregator Cotting	Aggrogator inf	own ation	State	Activity
● Console Port Info ● Port Controls ● Port Controls ● Trunking ● Filter Database ● VLNN Configuration ● Spanning Tree ● Port Saiffer ● Solution Saiffer<	IP Address	<u>Augregator Setung</u>	Augregator int	UFMIdUIUI	State	ACTIVITY
Port Controls Port CaCP State Activity Port CaCP State Activity Trunking 1 □ Active 5 □ Active Piller Database 2 □ Active 6 □ Active Port State Activity 3 □ Active 7 □ Active ShMP 3 □ Active 8 □ Active Source for mover Close € TTTP Update Firmware Apply Default Help Testes System Reset System Reset System State Active State Active State Active	A REAL PROVIDENT AND A RE		1	-		
Trunklag 1 □ Active 5 □ Active Filter Database 2 □ Active 6 □ Active VLAN Configuration 3 □ Active 7 □ Active Spanning Tree 3 □ Active 8 □ Active Standing Tree 4 □ Active 8 □ Active Standing Tree Apply Default Help TFTP Update Firmware Configuration Backup Reset System Image: System Image: System	the second s	Por	t LACP State Activit	y Port	LACP State Activity	1
Filter Database 2 □ Active 6 □ Active VLAN Configuration 3 □ Active 7 □ Active Spanning Tree 4 □ Active 8 □ Active SNNP 4 □ Active 8 □ Active Close ★ TFTP Update Firmware TFTP Update Firmware Term Variation Backup Help Reset System Configuration Backup Reset System Term Variation Backup Term Variation Backup	The second s	1	□ Active	5	🗆 Active	
Spanning Tree Port Sniffer SNMP Security Manager Close ★ FFTP Update Firmware Configuration Backup Reset System	Filter Database				Alter and the state and	-
Port Sniffer 3 Active 7 1 Active SMMP 4 Active 8 Active Security Manager Close • • Apply Default PP Update Firmware Ifiguration Backup • • •		2	L Active	6		
SNMP 4 Active 8 Active Score to cose		3	C Active	7	🗖 Active	
Security Manager 4 L ACtive 8 L Active Close * Apply Default Help	and a second		—		—	-
FTP Update Firmware	The second se	4		8	L Active	
Configuration Backup Reset System	Close 🚖		Apply D	efault	Help	
Reset System	FTP Update Firmware			100		
Reset System	Configuration Backup					

Figure 5-18 WGSD-1020 State Activity Web Page screen

Please check the detail description of parameters as below:

Active(enable): the port automatically sends LACP protocol packets.

Passive (not enable Active): the port does not automatically sends LACP protocol packets and only respond when it receives LACP protocol packets from the opposite device.

- *Note:* * A link having either two active LACP ports or one active port can perform dynamic LACP trunking. A link has two passive LACP ports will not perform dynamic LACP trunking, because both ports are waiting for LACP protocol packets from the opposite device.
 - * If the switch is active LACP's actor, when you are select trunking port, the active status will be created automatically.

You can click" Help" button; the following screen in Figure 5-19 appears.

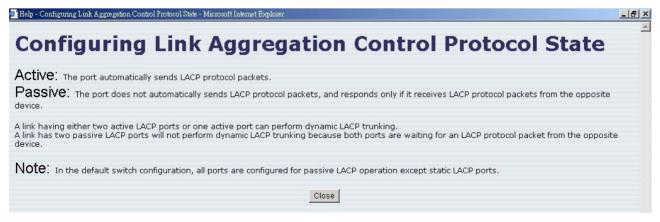


Figure 5-19 WGSD-1020 Trunk Help Web Page screen

Click "Close" to close this screen.

5.4.6 Filter Database

	VCSD-1020 With the test of test of the test of
MENU	
Home	Forwarding and Filtering
Port Status	Forwarding and Filtering
Port Statistics	
Administration	IGMP Snooping Static MAC Addresses Port Security MAC Filtering
IP Address	State me
Switch Settings Console Port Info	Multicast Group
Port Controls	Ip_Address VID MemberPort
Trunking	
Filter Database	
VLAN Configuration	
Spanning Tree	
Port Sniffer SNMP	
Security Manager	
Close 🚖	
TFTP Update Firmware	
Configuration Backup	
Reset System	
Reboot	
Rebool	

Figure 5-20 WGSD-1020 IGMP Snooping Web Page screen

Please check the detail description of parameters as below:

IGMP Snooping: WGSD-1020 support IP multicast and allow enable IGMP protocol on Switch setting advanced page from the web interface. This web page provide IGMP Snooping information, you can see different multicast group, VID and member port. Please note the IP multicast address range is from 224.0.0.0 to 239.255.255.255.

	PLANET Image: Construct of the second se
MENU Home Port Status Port Statistics Administration	Forwarding and Filtering
IP Address Switch Settings Console Port Info Port Controls Trunking	IGMP Snooping Static MAC Addresses Port Security MAC Filtering Static addresses currently defined on the switch are listed below. Click Add to add a new static entry to the address table. Click Add to add a new static entry to the address table. Click Add to add a new static entry to the address table.
 Filter Database VLAN Configuration Spanning Tree Port Sniffer SNMP Security Manager Close \$ TFTP Update Firmware 	MAC Address PORT
Configuration Backup Reset System Reboot	MAC Address
	Port Num Vian ID N/A
	Add Delete Help

Figure 5-21 WGSD-1020 Static MAC Address Web Page screen

Static MAC Address: when add a static MAC Address, it remains in the Switch's address table, regardless of whether the device is physically connected to the Switch. This function make the Switch can relearn device's MAC Address when the device is disconnected or power-off and active in the network again. The configure procedure is shown as below:

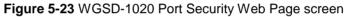
- 1. To add static MAC Address.
- 2. From the main menu, click "administrator" then click "Filter Database".
- 3. Click "static MAC Address". In the MAC address box. Enter the MAC address to which port should permanently forward traffic, regardless of the device's network activity.
- 4. In the Port Number box, select a port number.
- 5. If tag-based (IEEE 802.1Q) VLANs are set up on the Switch, static addresses are associated with individual VLANs. Type the VID (tag-based VLANs) to associate with the MAC address.
- 6. Click "add" to take effect.

You can click" Help" button; the following screen in Figure 5-22 appears.

🗧 Help) - Adding Static MAC Addresses - Microsoft Internet Explorer	_ 8 ×
A	dding Static MAC Addresses	<u>^</u>
	n you add a static MAC address, it remains in the switch's address table, regardless of whether the device is physically connected to the switch. Thi s the switch from having to re-learn a device's MAC address when the disconnected or powered-off device is active on the network again.	is
То	add a static MAC address	
1.	From the main menu, click Configure Device, then click Forwarding and Filtering.	
2.	Click Static MAC Addresses.	
З.	In the MAC address box, enter the MAC address to and from which the port should permanently forward traffic, regardless of the device's networ activity.	k
4.	In the Port Number box, select a port number. For the optional modules, the port number is MP1 (and MP2 for the 100FX module).	
5.	If port-based or tag-based (IEEE 802.1Q) VLANs are set up on the switch, static addresses are associated with individual VLANs. Type the VLAN name (port-based VLANs) or VID (tag-based VLANs) to associate with the MAC address.	
6.	Click Add.	
	Close	

Figure 5-22 WGSD-1020 Adding Static MAC Address Web Page screen

	WCSD-1920		<u>।</u> হ	Intelligent Eth 1000 Save - T	0/1000Mbps ernet Switch
ne t Status t Statistics	Forward	ling and Filtering			
ninistration IP Address	IGMP Snooping	Static MAC Addresse	5	Port Security MAC F	iltering
Switch Settings Console Port Info Port Controls Trunking	Port	Enable Security (disable for MAC Learning)	Port	Enable Security (disable for MAC Learning)	
Filter Database	1		6		
VLAN Configuration	2		7		
Spanning Tree					
Port Sniffer	3		8		
SNMP	4		9		
Security Manager Close 🚖	5	Γ	10	Г	
P Update Firmware			ault	Help	
figuration Backup et System oot					



Port Security: any port in security mode will be "locked" without permission of MAC address learning. Only the incoming packets with MAC already existing in the MAC address table can be forwarded normally. You can disable the port from learning any new MAC addresses then use the static MAC addresses screen to define a list of MAC address that can use the secure port. Enter the settings then click submit to apply the change on this web page.

You can click" Help" button; the following screen in Figure 5-24 appears.



Figure 5-24 WGSD-1020 Configure Port Security Web Page screen

Click "Close" to close this screen.

	PLANET 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Home	
Port Status	Forwarding and Filtering
Port Statistics	
Administration P Address	IGMP Snooping Static MAC Addresses Port Security MAC Filtering
Switch Settings Console Port Info Port Controls	Specify a MAC address to filter.
Trunking	MAC Address
 Filter Database VLAN Configuration Spanning Tree Port Saiffer SNMP Security Manager Close ± TFTP Update Fir mware Configuration Backup Reset System Reboot 	
	Mac Address
	Vian ID
	Add Delete Help



MAC Filtering: MAC address filtering allows the WGSD-1020 to drop unwanted traffic. Traffic is filtered based on the destination addresses. For example: if your network is congested because of high utilization from one MAC address, you can filter all traffic transmitted from that MAC address.

You can click" **Help**" button; the following screen in Figure 5-26 appears.

🎒 Help	- Configuring MAC Address Filters - Microsoft Internet Explorer
Сс	onfiguring MAC Address Filters
netw	address filtering allows the switch to drop unwanted traffic. Traffic is filtered based on the source or destination addresses. For example, if your ork is congested because of high utilization from one MAC address, you can filter all traffic transmitted from that MAC address, restoring network flow you troubleshoot the problem.
То	add a MAC address filter
1.	From the main menu, click Configure Device, then click Forwarding and Filtering.
2.	Click MAC Filtering.
з.	Click Add.
4.	In the MAC Address box, type the MAC address (without hyphens) to filter.
5.	Select the port that will filter traffic from this address.
6.	If port-based or tag-based VLANs are configured on the switch, type the name or VID of the VLAN to use the filter.
7.	Apply.
	Close



Click "Close" to close this screen.

5.4.7 VLAN Configuration

A Virtual LAN (VLAN) is a logical network grouping that limits the broadcast domain. It allows you to isolate network traffic so only members of the VLAN receive traffic from the same VLAN members. Basically, creating a VLAN from WGSD-1020 is logically equivalent of reconnecting a group of network device to another Layer 2 Switch. However, the entire network device is still plug into the same Switch physically.

WGSD-1020 support port-based(refer to section 5.4.7.1) and protocol-based VLAN (refer to section 5.4.7.2) in web management page. In the default configuration VLAN is enable and all ports belong to the default VLAN (VID=1).

5.4.7.1 Port-based VLANs (IEEE 802.1Q VLAN)

Port-based Tagging rule VLAN is an IEEE 802.1Q standard. Therefore, it's possible to create a VLAN across devices from different Switch venders. IEEE 802.1Q VLAN use a technique to insert a "Tag" into the Ethernet frames. Tag contains a VLAN identifier (VID) that indicates the VLAN numbers.

Note: You can disable/enable VLAN function and choose VLAN operation Mode from Switch Settings.

MENU								
Home	-							
Port Status	VLAN Configuration							
Port Statistics								
Administration IP Address	Basic Port VID							
Switch Settings								
Console Port Info	802.1Q with\without GVRP VLAN Information							
 Port Controls Trunking 								
Filter Database	default1							
VLAN Configuration								
 Spanning Tree Port Sniffer 								
 Port Sniffer SNMP 								
Security Manager								
Close 🚖								
TFTP Update Firmware								
Configuration Backup								
Reset System	Add Edit Delete PrePage NextPage Help							
Reboot								

Figure 5-27 WGSD-1020 Tag-based (IEEE 802.1Q) VLAN Web Page screen

Create a new VLAN group and add tagged member ports procedure:

- **1.** From the main menu , click administrator \rightarrow VLAN configuration. The screen in Figure 5-27 appears.
- 2. Click "Add" to create a new VLAN group.
- 3. Type a name for the new VLAN and VLAN ID (between 2- 4094). The default VLAN of each port 1.
- 4. From the available ports box, select ports to add to the Switch and click "Add"
- 5. Click "Apply" to take effect.

You can click" Help" button; the following screen in Figure 5-28 appears.

Configuring a Tag-based VLAN - Microsoft Internet Explore

Configuring a Tag-based (IEEE 802.1Q) VLAN

Tag-based VLANs are based on IEEE 802.1Q specifications. Traffic is forwarded to VLAN member ports based on identifying VLAN tags in data packets. You can also configure the switch to interoperate with existing tag-based VLAN networks and legacy non-tag networks.

To configure a tag-based VLAN

- 1. Make sure the switch's VLAN operation mode is set to Tag-based (IEEE 802.1Q) VLAN.
- 2. Create a VLAN and add tagged member ports to it.
 - O From the main menu, click Configure VLAN, then click Tag-based VLAN. O Click Add

 - O Type a name for the new VLAN. O Type a VID (between 2-4094). The default is 1. O From the Available ports box, select ports to add to the switch and click Add. O Click Apply.

By adding ports to the VLAN you are also tagging of traffic on that port. This means that traffic leaving the switch has a unique identifier (VLAN ID) that is used to specify traffic from different VLANs.

3. Configure port settings.

From the main Tag-based (IEEE 802.1Q) VLAN page, click Port Settings. To configure a port, click it on the switch faceplate graphic. To configure settings across all ports on the switch, click Configure All Ports.

O Port VID (PVID) Sets the Port VLAN ID that will be assigned to untagged traffic on a given port. For example, if port 10's Default PVID is 100, all untagged packets on port 10 will belong to VLAN 100. The default setting for all ports is VID 1.

This feature is useful for accomodating devices that you want to participate in the VLAN but that don't support tagging. Only one untagged VLAN is allowed per port.

O GVRP (GARP [Generic Attribute Registration Protocol] VLAN Registration Protocol)

GNR allows automatic VLAN configuration between the switch and nodes. For example, if the switch is connected to a device with GVRP enabled, you can enable this setting to allow dynamic VLAN configuration information to be processed by the switch.

If a device sends a GVRP request using the VID of a VLAN defined on the switch, the switch will automatically add that device to the existing VLAN.

Note: GVRP must also be enabled on participating network nodes.

O GMRP (GARP Multicast Registration Protocol)

GMRR is a standards-based method of intelligent multicast filtering. If the switch is connected to a device with GMRP enabled, you can enable

Figure 5-28 WGSD-1020 Tag-based (IEEE 802.1Q) VLAN Help Web Page screen

- 8 ×

-

5.4.7.2 Port VID

In order for an end station send packets to different VLANs. Itself has to be either capable of tagging packets it sends with VLAN tags or attached to a VLAN-aware bridge that is capable of classifying and tagging the packet with different VLAN ID based on default PVID and other packet information.

	WGSD-1820		INFINCT 180 180		2	Ì		10/100/100 telligent Ethernet : © Sue - 7 • UNK • Sue • Tax		
MENU	Antoi				5		indsi			
Home										
Port Status	VLAN Configuration									
Port Statistics	62									
Administration			2002 34			1012				
IP Address			Basic	1		P	ort VID			
Switch Settings										
Console Port Info		Ass					fic on each por	t,		
Port Controls			then click S	ubmit to apply	the ch	nanges on t	his page.			
Trunking Filter Database	J. S. C.	and the second	Ingress	Ingress			Ingress	Ingress		
VLAN Configuration	No.	PVID		Filtering 2	NO	PVID	Filtering	Filtering		
Spanning Tree			. neering 1	. incoming 2			1	2		
Port Sniffer	1	1	Enable 💌	Disable 🔻	6	1	Enable 🔻	Disable 💌		
SNMP		4			-		Enable -			
Security Manager	2	1	Enable 💌	Disable 💌	7	1	Enable 💌	Disable 🗾		
Close 🚖	3	1	Enable 💌	Disable 💌	8	1	Enable 💌	Disable 💌		
TFTP Update Firmware		4	En altia	Disable			En alta	Disable		
Configuration Backup	4	<u> 1</u>	Enable 💌	Disable 💌	9	1	Enable 💌	Disable 🗾		
Reset System	5	1	Enable 💌	Disable 💌	10	1	Enable 💌	Disable 💌		
Reboot	(For Ingr	ess Filteri ward only ess Filteri p Untagge	packets with ing Rule 2 ed Frame)	VID matchir		s port's c	onfigured VIE))		

Figure 5-29 WGSD-1020 Port VID setting Web Page screen

Please check the detail description of parameters as below:

1. From the main Tag-based (IEEE 802.1Q) VLAN page, click "Port VID Settings".

2. Port VID(PVID):

Sets the port VLAN ID that will be assigned to untagged traffic on a given port. For example, if port 10's default PVID is 100, all untagged packets on port 10 will belong to VLAN 100. The default setting for all port is VID 1. This feature is useful for accommodating device that you want to participate in the VLAN does not support VLAN tagging. Only one untagged VLAN is allowed per port.

3. Ingress Filtering:

Ingress filtering lets frames belonging to a specific VLAN to be forwarded if the port belongs to that VLAN.

Please note there are two ingress filtering rule as follows:

Ingress filtering rule 1: forward only packets with VID matching per port's configured VID.

Ingress filtering rule 2: drop untagged frames.

You can click" Help" button; the following screen in Figure 5-28 appears.

Click "Close" to close this screen.

5.4.7.3 Port Based VLAN

Choose Port Based VLAN function operation Mode from Switch Settings. The following screen in Figure 5-30 appears.

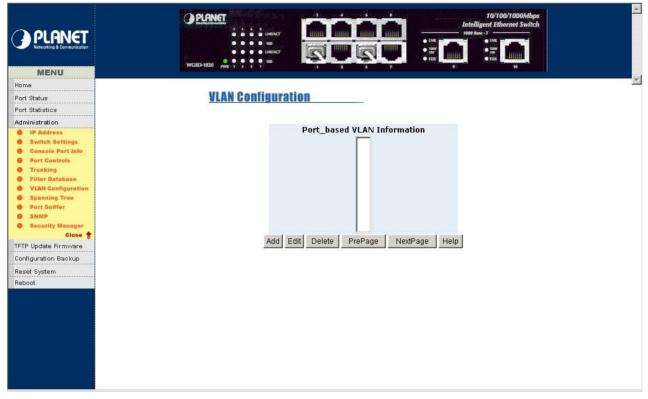


Figure 5-30 WGSD-1020 Port Based VLAN Web Page screen

Create a new VLAN group and add member ports procedure:

- 1. Click "Add" to create a new VLAN group. The following screen in Figure 5-31 appears.
- 2. Type a name for the new VLAN and VLAN ID (between 1- 4094).
- 3. From the available ports box, select ports to add to the Switch and click "Add"
- 4. Click "Apply" to take effect. The following screen in Figure 5-32 appears.

MENU	
Home	WAN Configuration
Port Status	VLAN Configuration
Port Statistics	
Administration	
 IP Address Switch Settings 	VLAN Name: PLANET
Console Port Info	
Port Controls	Grp ID: 1
Trunking	
 Filter Database VLAN Configuration 	
Spanning Tree	4
Port Sniffer	
 SNMP Security Manager 	6 Add >> 7
Close 🚖	8
TFTP Update Firmware	9 < Remove
Configuration Backup	10.
Reset System	
Reboot	
	Apply Help

Figure 5-31 WGSD-1020 Port Based VLAN setting Web Page screen

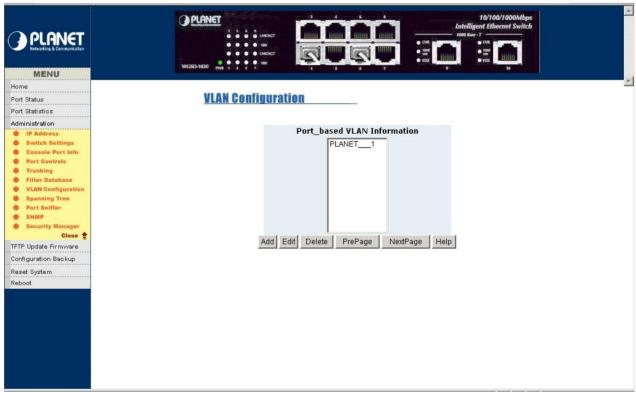


Figure 5-32 WGSD-1020 Port Based VLAN setting successful Web Page screen

5.4.8 Spanning Tree

The Spanning Tree Protocol (STP) is a standardized method (IEEE 802.1D) for avoiding loops in Ethernet networks. When enable STP function, please ensure only one path at a time is active between any two nodes on the network. You can enable Spanning Tree Protocol from the Switch setting advanced item of web interface. We are recommended you to enable STP on whole Switches for ensures a single active path in the network.

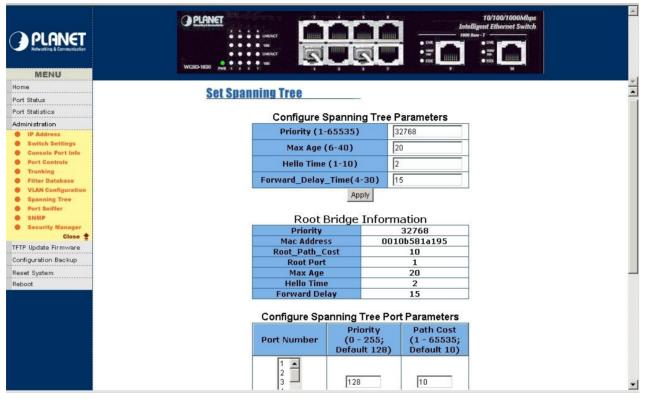


Figure 5-33 WGSD-1020 Spanning Tree Parameters Web Page screen

You can modify new value for STP parameter then click "Apply" button to modify.

32768
15
3
5

Figure 5-34 Configure Spanning Tree Parameters Web Page screen

Please refer to Table 5-1 for the Spanning Tree Parameters detail description.

Parameter	Description
	Allow changing priority value. A value used to identify the root bridge. The bridge with the lowest value has the highest priority and is selected as the root. The priority range is 1 to 65535
Max Age,	Allow changing the Max Age value. The Max Age range is 6 to 40
Hello Time	Allow changing the Hello Time. The Hello Time range is 1 to 10.
Forward Delay Time	Allow changing the forward delay time. The Forward Delay Time range is 4 to 30.

Table 5-1 Spanning Tree Parameters detail description

You can view the spanning tree information about Root Bridge. The screen is shown as below:

Root Bridge	Information
Priority	32768
Mac Address	004063800030
Root_Path_Cost	0
Root Port	we are root
Max Age	15
Hello Time	3
Forward Delay	5

200 2002 13/2/312 2

Figure 5-35 Root Bridge Information Web Page screen

The following parameter can be configured of per port, after you setup completed. Please click "Apply" button to modify.

Port Number	Priority (0 - 255; Default 128)	Path Cost (1 - 65535; Default 10)
1 ▲ 2 3 4 5 ▼	128	10
	Apply Help	

Configure Spanning Tree Port Parameters

Figure 5-36 Configure Spanning Tree Parameters of each port Web Page screen

Please refer to Table 5-2 for per port Spanning Tree Parameters detail description.

Parameter	Description
Port Priority	Allow to set port priority of per port. The priority range is 0 to 255.
Path Cost	Allow to set port cost of per port. The path cost range is 1 to 65535

Table 5-2 Per port Spanning Tree Parameters detail description

You can view spanning tree status about the Switch. The screen is shown as below:

STP Port Status				
PortNum	PathCost	Priority	PortState	
1	10	128	DISABLED	
2	10	128	DISABLED	
3	10	128	FORWARDING	
4	10	128	DISABLED	
5	10	128	DISABLED	
6	10	128	DISABLED	
7	10	128	DISABLED	
8	10	128	FORWARDING	
9	10	128	DISABLED	
10	10	128	DISABLED	

Figure 5-37 STP Port Status Web Page screen

You can click" Help" button; the following screen in Figure 5-38 appears.

Spanning Tree Management Help - Microsoft Internet Explorer	_ 8
Spanning Tree Management Help	
The Spanning-Tree Protocol is a standardized method for avoiding loops in switched networks.	
Use this page to change the parameters this switch uses when chosen to be the Spanning-Tree root.	
Current Spanning Tree Root	
These fields display the Spanning-Tree values defined for the switch currently acting as the root.	
Spanning Tree Options4	
Define the following parameters to take effect when this switch is acting as the root:	
Priority A value used to identify the root bridge. The bridge with the lowest value has the highest priority and is selected as the root. Enter a number through 65535.If you change the value, you must reboot the switch.	ər 1
Max age The number of seconds a bridge waits without receiving Spanning-Tree Protocol configuration messages before attempting a reconfiguratior number 6 through 40.	n. Enter a
Hello The number of seconds between the transmission of Spanning-Tree Protocol configuration messages. Enter a number 1 through 10.	
Delay The number of seconds a port waits before changing from its Spanning-Tree Protocol learning and listening states to the forwarding state. E number 4 through 30.	Inter a
Note: Each switch in a spanning-tree adopts the Hello, Delay, and Max age parameters of the root bridge, regardless of how it is configured.	

Close

Figure 5-38 Spanning Tree Management Help Web Page screen

5.4.9 Port Sniffer

The Port sniffer is a method for monitor traffic in WGSD-1020 networks. Traffic through ports can be monitored by one specific port. Traffic through the in or out monitored ports will be duplicated into sniffer port.

	WCSD-1920 Prist 1 4 4 1 100				10/100/1000Mbps Intelligent Ethernet Switch	<u>*</u>
MENU						
Home						
Port Status	Port Sniffer					
Port Statistics						
Administration			· · · · ·			
IP Address		Roving Analy				
 Switch Settings Console Port Info 		Analysis Port				
Port Controls		Monitor Ports	s Monitor R	x Monitor Tx		
Trunking		1				
 Filter Database VLAN Configuration 		2				
 Spanning Tree 		3				
Port Sniffer			ACTI			
SNMP		4				
Security Manager Close 1		5				
TFTP Update Firmware		6				
Configuration Backup		7				
Reset System		8				
Reboot		9				
		10				
		Apply	Default	Help		

Figure 5-39 WGSD-1020 Port Sniffer Web Page screen

Please check the detail description of parameters as below:

Roving Analysis: provide disable or enable port sniffer function.

Analysis Port: allow seeing all monitor port traffic; you can connect sniffer port to LAN Explorer, Session Wall, Sniffer Pro or Netxray.

Monitor RX: Monitored receive frames from specific port.

Monitor TX: Monitored send frames from specific port.

You can click" Help" button; the following screen in Figure 5-40 appears.



Figure 5-40 WGSD-1020 Port Sniffer Help Web Page screen

5.4.10 SNMP

Allow to management the WGSD-1020 through the Simple Network Management Protocol (SNMP) It provides protocol that governs the transfer of information between management stations (PC with SNMP software) and agent (switches). The management Information Base (MIB) is installed correctly on the management station.

	VCSD-1920 W 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
MENU	
Home	SNMP Management
Port Status	
Port Statistics	
Administration	System Options
IP Address	Name :
 Switch Settings Console Port Info 	Location :
Port Controls	
Trunking	Contact :
 Filter Database VLAN Configuration 	Apply Help
Spanning Tree	Community Strings
Port Sniffer	Current Strings : New Community String :
 SNMP Security Manager 	public_RO << Add << String :
Close 🚖	
TFTP Update Firmware	Remove © RO C RW
Configuration Backup	
Reset System	
Reboot	
	Trap Managers
	Current New Manager : Managers :
	(none) << Add << IP Address :
	Remove Community :

Figure 5-41 WGSD-1020 SNMP Management Web Page screen

Use this page to define the management stations as trap managers and key in SNMP community strings. It also allows user to define a name, location and contact person for the WGSD-1020. Fill in the system options data and click "Apply" to update the change of this page.

	System Optio	ns	
Name :			
Location :			
Contact :			
	Apply Hel	q	

Figure 5-42 System Options Web Page screen

Please check the detail description of parameters as below:

Name: enter the system name for this Switch.

Location: enter the location of this Switch.

Contact: enter the name of system administrator. Then click "Apply" to take effect.

Community strings serve as password and can be entered as following screen:

Community Strings				
Current Strings :		New Community String :		
public_RO	<< Add <<	String :		
	Remove	⊙ro ⊂rw		

Figure 5-43 Community Strings Web Page screen

Please check the detail description of parameters as below: **RO / Read Only:** enables requests accompanied by this string to display MIB-object information.

RW / Read Write: enables requests accompanied by this string to display MIB-object information and set MIB objects.

Trap Manager

A Trap manager is a management station that receives traps, the system alerts generated by the Switch. If Trap manager is not defined then there is no trap issued. Create a Trap manager by enter the IP address of the station and community name.



Figure 5-44 Trap Managers Web Page screen

You can click" Help" button; the following screen in Figure 5-45 appears.

SNMP Manage	ment Help - Microsoft Internet Explorer
SNM	P Management Help
Use this pag person for th	e to define management stations as trap managers and to enter SNMP community strings. You can also define a name, location, and contact e switch.
Systen	n Options4
Enter the fol	lowing information about the switch, as needed:
Location	a name to be used for the switch. the location of the switch.
Contact Enter	the name of a person or organization.
Click Statisti	cs to display SNMP system information about the switch.
Comm	unity Strings
Community s	strings serve as passwords and can be entered as one of the following:
Read only (R	es requests accompanied by this string to display MIB-object information.
Trap M	anagers
	ger is a management station that receives traps, the system alerts generated by the switch. If no trap manager is defined, no traps are te a trap manager by entering the IP address of the station and a community string.
	Close

Figure 5-45 SNMP Management Help Web Page screen

5.4.11 Security Manager

Allow user to modify the User Name and Password of WGSD-1020.

	PLANET
MENU	
Home	
Port Status	Security Manager
Port Statistics	
Administration	
IP Address	User Name: admin
 Switch Settings Console Port Info 	Assign/Change password: ***
Port Controls	Reconfirm password:
Trunking	
Filter Database	Apply
 VLAN Configuration Spanning Tree 	
Port Sniffer	
SNMP	
Security Manager	
Close 🚖	
TFTP Update Firmware	
Configuration Backup	
Reset System	
Reboot	

Figure 5-46 WGSD-1020 Security Manager Web Page screen

- 1. Input the new user name.
- 2. Input the new password.
- 3. Re-input the new password.
- 4. Click "Apply" button to modify.

5-5 TFTP Update Firmware

The following menu options provide some system control functions to allow user to update latest firmware and remotely reboot WGSD-1020 system.

	PLANET 1000/1000Mbps Intelligent Ethernet Switch Intelligent Ethernet Sw	×
Home		×.
Port Status	TFTP Download New Image	
Port Statistics		
Administration		
TFTP Update Firmware	TFTP Server IP Address 192.168.0.57	
Configuration Backup	Firmware File Name image.bin	
Reset System		
Reboot	Apply Help	

Figure 5-47 WGSD-1020 TFTP Download New Image Web Page screen

Firmware update requirements:

- 1. The latest firmware version of WGSD-1020.
- 2. WGSD-1020.
- 3. A TFTP server

Firmware update procedure:

- 1. Install TFTP server in your PC.
- 2. Download the firmware file and put the file to the TFTP download directory.
- 3. Enter the IP address of PC with TFTP server and the firmware name.
- 4. Click "Apply" to update the firmware.

You can click" Help" button; the following screen in Figure 5-48 appears.



Figure 5-48 WGSD-1020 TFTP Help Web Page screen

5-6 Configuration Backup

This option allows you to backup the WGSD-1020's configuration into a file.

	VCSD-H202 MK + + + HK + HK + HK + HK + HK + HK +
MENU	
Home	-
Port Status	TFTP Configuration
Port Statistics	
Administration	TFTP Restore Configuration <u>TFTP Backup Configuration</u>
TFTP Update Firmware	
Configuration Backup	TFTP Server IP Address 192.168.0.57
Reset System	
Reboot	Backup File Name Iflash.dat
	Apply Help

Figure 5-49 WGSD-1020 TFTP Configuration Web Page screen

TFTP Restore Configuration:

P Configuration	
TFTP Restore Configuration	TFTP Backup Configuration
TFTP Server IP Address	192.168.0.99
Backup File Name	flash.dat

Apply Help

Figure 5-50 WGSD-1020 TFTP Restore Configuration Web Page screen

Purpose: allow user restore the EEPROM value from this function.

Usage: enter the TFTP Server IP Address and Backup File Name.

Click "Apply" to restore EEPROM value.

Note: you must put the backup image file (backup by TFTP Backup Configuration) in TFTP server then download the backup image file to the WGSD-1020.

You can click" Help" button; the following screen in Figure 5-48 appears.

TFTP Backup Configuration:

FTP Restore Configuration	TFTP Backup Configuration
TFTP Server IP Address	192.168.0.99
Backup File Name	flash.dat

Figure 5-51 WGSD-1020 TFTP Backup Configuration Web Page screen

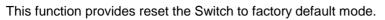
Purpose: allow user save the EEPROM value from this function.

Usage: Enter the TFTP Server IP Address and Backup File Name.

Click "Apply" to save current EEPROM value.

You can click" **Help**" button; the following screen in Figure 5-48 appears.

5-7 Reset System



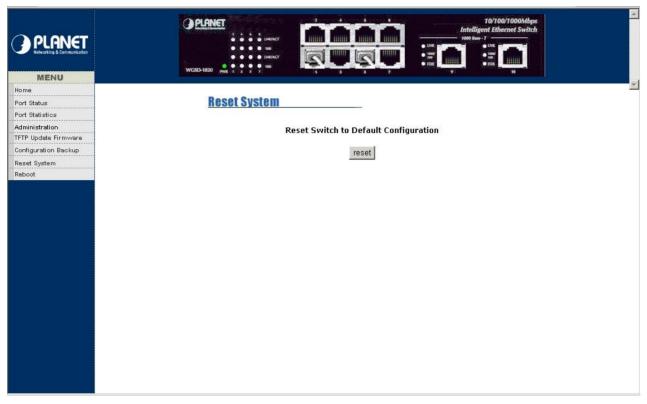


Figure 5-52 WGSD-1020 Reset Switch Web Page screen

5-8 Reboot System This function allows reboot the WGSD-1020.

	VICSD-1620 MK T 3 2 7 10 10 10 10 10 10 10 10 10 10 10 10 10	*
Home Port Status Port Statistics Administration TFTP Update Firmware Configuration Backup	Reboot Switch System	V
Reset System Reboot		

Figure 5-53 WGSD-1020 Reboot Switch Web Page screen

You can click" Help" button; the following screen in Figure 5-54 appears.

Ermote Boot Help - Microsoft Internet Explorer	<u>_ 8 ×</u>
Remote Boot System Help	×
Remote Boot is used to reset whole switch system	
If some network problem happen or some setting value take effect after reboot, you can reboot system.	
Close	

Figure 5-54 WGSD-1020 Reboot Switch Help Web Page

5-9 View the State, Link Activity and detail packet information

To view the current state, link, and detail packet information for the WGSD-1020, click the RJ-45 jacks on the switch shown in your Browser's screen. The LED Panel screen in Figure 5-55 appears.

State On Link Up TxGoodPkt 265849 TxBadPkt 0 RxGoodPkt 546222 RxBadPkt 6 TxAbort 0 Collision 28 DropPkt 209601	Port	1
TxGoodPkt 265849 TxBadPkt 0 RxGoodPkt 546222 RxBadPkt 6 TxAbort 0 Collision 28	State	On
TxBadPkt0RxGoodPkt546222RxBadPkt6TxAbort0Collision28	Link	Up
RxGoodPkt546222RxBadPkt6TxAbort0Collision28	TxGoodPkt	265849
RxBadPkt6TxAbort0Collision28	TxBadPkt	0
TxAbort0Collision28	RxGoodPkt	546222
Collision 28	RxBadPkt	6
	TxAbort	0
DropPkt 209601	Collision	28
	DropPkt	209601

Figure 5-55 View the State, Link, detail packet information Web Page screen

6. SWITCH OPERATION

6.1 Address Table

The Giga Switch is implemented with an address table. This address table composed of many entries. Each entry is used to store the address information of some node in network, including MAC address, port no, etc. This information comes from the learning process of Ethernet Switch.

6.2 Learning

When one packet comes in from any port. The Giga Switch will record the source address, port no. and the other related information in address table. This information will be used to decide either forwarding or filtering for future packets.

6.3 Forwarding & Filtering

When one packet comes from some port of the Ethernet Switching, it will also check the destination address besides the source address learning. The Ethernet Switching will lookup the address-table for the destination address. If not found, this packet will be forwarded to all the other ports except the port which this packet comes in. And these ports will transmit this packet to the network it connected. If found, and the destination address is located at different port from this packet comes in, the Ethernet Switching will forward this packet to the port where this destination address is located according to the information from address table. But, if the destination address is located at the same port with this packet comes in, then this packet will be filtered. Thereby increasing the network throughput and availability

6.4 Store-and-Forward

Store-and-Forward is one type of packet-forwarding techniques. A Store-and Forward Ethernet Switching stores the incoming frame in an internal buffer, do the complete error checking before transmission. Therefore, no error packets occurrence, it is the best choice when a network needs efficiency and stability.

The Ethernet Switch scans the destination address from the packet-header, searches the routing table provided for the incoming port and forwards the packet, only if required. The fast forwarding makes the switch attractive for connecting servers directly to the network, thereby increasing throughput and availability. However, the switch is most commonly used to segment existing hubs, which nearly always improves overall performance. A Ethernet Switching can be easily configured in any Ethernet network environment to significantly boost bandwidth using conventional cabling and adapters.

Due to the learning function of the Ethernet switching, the source address and corresponding port number of each incoming and outgoing packet are stored in a routing table. This information is subsequently used to filter packets whose destination address is on the same segment as the source address. This confines network traffic to its respective domain, reducing the overall load on the network.

The Giga Switch performs "Store and forward" therefore, no error packets occur. More reliably, it reduces the re-transmission rate. No packet loss will occur.

6.5 Auto-Negotiation

The STP ports on the WGSD-1020 switch have built-in "Auto-negotiation". This technology automatically sets the best possible bandwidth when a connection is established with another network device (usually at Power On or Reset). This is done by detecting the modes and speeds at the second of both device is connected and capable of, Both 10Base-T and 100Base-TX devices can connect with the port in either Half- or Full-duplex mode. 1000Base-T can only be connected in Full-duplex mode.

7.TROUBLESHOOTING

This chapter contains information to help you solve problems. If Giga Switch is not functioning properly, make sure the Ethernet Switch was set up according to instructions in this manual.

The Link LED is not lit

Solution:

Check the cable connection and remove duplex mode of the Giga Switch

Some stations can not talk to other stations located on the other port

Solution:

Please check the VLAN, port trunking and Port Sniffer function which may introduce this kind of problem.

Performance is bad

Solution:

Check the full duplex status of the Ethernet Switch. If the Ethernet Switch is set to full duplex and the partner is set to half duplex, then the performance will be poor.

APPENDIX A NETWORKING CONNECTION

A.1 Switch's RJ-45 Pin Assignments

1000Mbps,1000Base T

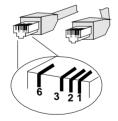
Contact	MDI	MDI-X
1	BI_DA+	BI_DB+
2	BI_DA-	BI_DB-
3	BI_DB+	BI_DA+
4	BI_DC+	BI_DD+
5	BI_DC-	BI_DD-
6	BI_DB-	BI_DA-
7	BI_DD+	BI_DC+
8	BI_DD-	BI_DC-

Implicit implementation of the crossover function within a twisted-pair cable, or at a wiring panel, while not expressly forbidden, is beyond the scope of this standard.

A.2 10/100Mbps, 10/100Base-TX

Contact	MDI	MDI-X
1	1	3
2	2	6
3	3	1
6	6	2

A.3 RJ-45 cable pin assignment



There are 8 wires on a standard UTP/STP cable and each wire is color-coded. The following shows the pin allocation and color of straight cable and crossover cable connection:



Figure A-1: Straight-Through and Crossover Cable

Please make sure your connected cables are with same pin assignment and color as above picture before deploying the cables into your network.

APPENDIX B TECHNICAL SPECIFICATIONS

WGSD-1020 10/100/100	WGSD-1020 10/100/1000Mbps Intelligent Ethernet Switch		
Hardware Specification			
Ports	Eight 10/ 100Base-TX , two 1000Base-T RJ-45 Auto-MDI/MDI-X ports		
Switch Fabric	5.6Gbps		
Switch Processing Scheme	Store-and-forward		
Throughput (packet per second)	4.16Mpps		
Address Table	8K entries		
Queue Buffer	128Kbytes		
Flow Control	Back pressure for half duplex, IEEE 802.3x PAUSE Frame for full duplex		
Broadcast Storm Control	Runt and CRC Filtering eliminates erroneous packets to optimize the network bandwidth		
Dimensions	217x 135x 43 mm (D x W x H)		
Weight	1kg		
Power Requirement	100~240 VAC, 50-60 Hz		
Power Consumption / Dissipation	17 Watts maximum / 58 BTU/hr maximum		
Temperature	Operating: 0~50°C, Storage -10~70°C		
Humidity	Operating: 10% to 90%, Storage: 5% to 90% (Non-condensing)		
Standards Conformance			
Regulation Compliance	FCC Part 15 Class A, CE		
Standards Compliance	IEEE: IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.1d Spanning Tree IEEE 802.1d Spanning Tree IEEE 802.1d VLAN IEEE 802.1d VLAN IEEE 802.3ad port trunking (with LACP) RFC: RFC 783 TFTP RFC 783 TFTP RFC 791 IP RFC 791 IP RFC 792 ICMP RFC 792 ICMP RFC 1157 SNMP RFC 1213 MIB II RFC 1757 RMON (group 1, 2, 3, 9) RFC 2068 HTTP		

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